

Field	Definition
%age Breach of Operational Limit	= N (Total %age Breach of Operational Limit for each Group from the Detail Report)

#### 4.8.13.2. Detail Report 1:

Report Name	Portfolio Parameter Maximum Net Positive Hedge Counterparty Exposure - % Mark TPV – Detail 1
Report No	2067

Rhinebridge PLC						
Param. Max. Net Positive Hedge Counterparty Exp – Detail 1						
Day, DD Month, YYYY						
Obligor	Net Positive Market Value	% Mark TPV	Operational Limit	Eligible Limit	% Breach Operational Limit	% Breach Eligible Limit
<b>AAA</b>						
Obligor 1	XX.XXXXXX	X.XX	4.00	4.00	X.XX	X.XX
Obligor 2	XX.XXXXXX	X.XX	4.00	4.00	X.XX	X.XX
	<b>XX.XXXXXX</b>	<b>X.XX</b>			<b>X.XX</b>	<b>X.XX</b>
<b>AA</b>						
Obligor 1	XX.XXXXXX	X.XX	2.00	2.00	X.XX	X.XX
Obligor 3	XX.XXXXXX	X.XX	2.00	2.00	X.XX	X.XX
	<b>XX.XXXXXX</b>	<b>X.XX</b>			<b>X.XX</b>	<b>X.XX</b>
<b>A</b>						
Obligor 4	XX.XXXXXX	X.XX	0.50	0.50	X.XX	X.XX
Obligor 5	XX.XXXXXX	X.XX	0.50	0.50	X.XX	X.XX
	<b>XX.XXXXXX</b>	<b>X.XX</b>			<b>X.XX</b>	<b>X.XX</b>
etc...						

##### Definition

- The report should be grouped firstly by the limit being tested.(i.e., AAA, AA, A etc)

Field	Reference	Definition
Obligor (Parent)		Name of Parent Counterparty (This is the second level grouping)
Net Positive Market Value	E	= IF (C (from Detail 2 Report) > 0, C (from Detail 2 Report), 0 ) = Market Value of the Single Obligor against the Group to be tested if positive otherwise zero (i.e. AAA, AA etc)
%age Par TPV	F	= IF( E > 0, D (from Detail 2 Report), 0 ) = %age Mark TPV of the Single Obligor against the Group to be tested if positive otherwise zero (i.e. Overall, AAA, AA etc)
Operational Limit	G	The Operational Limit against the particular group (e.g. AAA etc)
Eligible Limit	H	The Eligible Limit against the particular group (e.g. AAA etc)
%age Breach of Eligible Limit (at	I	Calculated against the total of each Single Obligor Level. = Max ( 0, F – H )

Field	Reference	Definition	
Single Obligor Level)			
%age Breach of Operational Limit (at Single Obligor Level)	J	Calculated against the total of each Single Obligor Level.. = Max ( 0, F - I - G )	
Total (at each Group level)	K	Market Value	Sum (E) Par Value of each Single Obligor level within the group being tested
	L	%age Mark TPV	Sum of (F) % Par TPV of each Single Obligor level within the group being tested
%age Breach of Eligible Limit (at Group Level)	M	= SUM ( I ) = Sum of all %age Breach of Eligible Limit (at Single Obligor Level)	
%age Breach of Operational Limit (at Group Level)	N	= SUM ( J ) = Sum of all %age Breach of Operational Limit (at Single Obligor Level)	

#### 4.8.13.3. Detail Report 2

Report Name	Portfolio Parameter Maximum Net Positive Hedge Counterparty Exposure - % Mark TPV – Detail 2
Report No	2068

Rhinebridge PLC				
Param. Max. Net Positive Hedge Counterparty Exp – Detail 2				
Day, DD Month, YYYY				
Obligor (Parent)	Product ID	Rating	Market Value	% Mark TPV
<b>AAA</b>				
Obligor 1	B_12345	AAA	XX.XXXXXXX	X.XX
			<b>XX.XXXXXXX</b>	<b>X.XX</b>
Obligor 2	B_34567	AAA	XX.XXXXXXX	X.XX
	B_45678	AAA	XX.XXXXXXX	X.XX
			<b>XX.XXXXXXX</b>	<b>X.XX</b>
<b>AA</b>				
Obligor 1	B_23456	AA	XX.XXXXXXX	X.XX
			<b>XX.XXXXXXX</b>	<b>X.XX</b>
Obligor 3	B_56789	AA	XX.XXXXXXX	X.XX
	B_67890	AA	XX.XXXXXXX	X.XX

<b>Rhinebridge PLC</b> Param. Max. Net Positive Hedge Counterparty Exp – Detail 2 Day, DD Month, YYYY				
Obligor (Parent)	Product ID	Rating	Market Value	% Mark TPV
			<b>XX.XXXXXXX</b>	<b>X.XX</b>
<b>A</b>				
Obligor 4	B_78901	A	XX.XXXXXXX	X.XX
	B_89012	A	XX.XXXXXXX	X.XX
			<b>XX.XXXXXXX</b>	<b>X.XX</b>
Obligor 5	B_90123	A	XX.XXXXXXX	X.XX
	B_01234	A	XX.XXXXXXX	X.XX
			<b>XX.XXXXXXX</b>	<b>X.XX</b>

**Definition**

- The first level of grouping is by Rating Group (e.g. AAA, AA, A (Coarse Level) etc)
- The list of Derivatives included and displayed against a single obligor within a specific group being tested should comply with the grouping (e.g. Only AAA Derivatives if testing against AAA limits etc.)
- The second level of grouping should be by each Single Obligor

Field	Reference	Definition	
Obligor (Parent)		Name of Parent Counterparty (second level grouping)	
Product ID		Product.ProductID	
Rating		This is the Rating of the Child Counterparty	
Par Value	A	Market Value – (see <u>Definitions – Market Value</u> )	
% Par TPV	B	A (Market Value) / Mark Total Portfolio Value (see <u>Definitions – Mark Total Portfolio Value</u> )	
Total (at each Single Obligor level)	C	Market Value	Sum (A) Market Value of each derivative within a Single Obligor against the group being tested
	D	% Mark TPV	Sum of (B) % Mark TPV of each derivative within a Single Obligor against the group being tested

## 4.9. Capital Tests

The Capital Tests comprise of two sets of tests Major and Minor Capital Tests:

**NB: For closing any reference to variables associated with Synthetic Investments has been removed (including from the formulae). These will be addressed within a separate release post closing.**

Therefore the following variables have been **removed** from the relevant tests.

Variable	Description
<b>S (Major)</b>	sum of (Market Value of CDS minus (Market Value of Reference Obligation * relevant Investment Capital Requirement) (for all but USNTID CDS)
<b>U (Major)</b>	Total Unfunded Synthetic Base Capital Requirement ("TUSBCR"), the capital charge for USNTID CDS
<b>S (Minor)</b>	sum of (Market Value of CDS minus (Market Value of Reference Obligation * (relevant Investment Capital Requirement * (100/70))))
<b>U (Minor)</b>	TUSBCR * (100/70)
<b>S</b>	Sum of Market Value of CDS for all but USNTID CDS
<b>U</b>	Total Unfunded Synthetic Base Capital Requirement ("TUSBCR")

The Major Capital tests consists of the following tests (These tests should include all Eligible and Ineligible Cash Investment and Synthetic Investments):

- Major Capital Adequacy Test
- Total Capital Maximum Leverage Test
- Junior Capital Maximum Leverage Test
- Junior and Mezzanine Capital Maximum Leverage Test
- Relative Leverage Test
- Major Capital Loss Limit

#### **4.9.1. Major Capital Tests**

#### 4.9.1.1. Summary Report

Report Name	Major Capital Tests
Report No	

There are two sections to this report which divides the "Major Capital Loss Limit" test from all other Major Capital Test in order to align the appropriate variables against all tests:

Rhinebridge PLC															
Major Capital Test															
Day, DD Month, YYYY															
Major Capital Test	I (Major)	I (Leverage)	H (Major)	L	CN	SCN	JCN	MCN	CD	P	Q	I	H	Test Sum	Result
<b>Major Capital Adequacy Test</b> $I(\text{Major}) + H(\text{Major}) - L - CD - P - Q > 0$	xx		xx					xx	xx				xx	Pass / Fail	
<b>Total Capital Maximum Leverage Test</b> $I(\text{Leverage}) / CN <= 25$				xx									xx	Pass / Fail	
<b>Junior Capital Maximum Leverage Test</b> $I(\text{Leverage}) / JCN <= 133.3$				xx				xx					xx	Pass / Fail	
<b>Junior and Mezzanine Capital Maximum Leverage Test</b> $I(\text{Leverage}) / (JCN + MCN) <= 33.3$				xx				xx	xx				xx	Pass / Fail	
<b>Relative Leverage Test 1</b> $((JCN + MCN) / SCN) >= (5.5 / 5.5)$							xx	xx					xx	Pass / Fail	
<b>Relative Leverage Test 2</b> $(JCN / (MCN + SCN)) >= (1.0 / 10.0)$							xx	xx					xx	Pass / Fail	
<b>Major Capital Loss Limit</b> $I + H - L - CD > 0.5 CN$				xx	xx			xx					xx	Pass / Fail	

## Definitions

Field	Description
I (Major)	Sum of “I (Major)” from the “ <b>Amended Market Value of Cash Investments</b> ” detail report (see below) + Cash at Hand (USD Equivalent)
I (Leverage)	= Market Value of all investments and derivatives (hedges) less MV of investments where the Sub Sector = ‘CASH EQUIVALENTS’
H (Major)	Total for “Adjusted MV (Major)” from the “ <b>Amended Market Value of Hedge Counterparty Exposure</b> ” detail report (see below)
L	Total Market Value of all Senior Funding from the “ <b>Average Cost Analysis (Senior Notes)</b> ” report. NB: This report will also need to include TRP and RP (Repos).
CN	Par Value of all Capital Notes (includes SUBNOTE_ and JNOTES and CNOTE and relates to Mezzanine Capital Notes and Junior Capital Notes and Senior Capital Notes)
SCN	Par Value of all Senior Capital Notes (CNOTE)
JCN	Par Value of all Junior Capital Notes (JNOTE)
MCN	Par Value of all Mezzanine Capital Notes (SUBNOTE )
CD	Sum of “Breakage Fee (CD)” from the “ <b>Amended Market Value of Cash Investments</b> ” detail report (see below)
P	Total Additional Capital Requirement (P) – see below
Q	Total Hedge Additional Capital Requirement – see below
I	Sum of “MV from the “ <b>Amended Market Value of Cash Investments</b> ” detail report (see below) + Cash at Hand (USD Equivalent)
H	Total “MV from the “ <b>Amended Market Value of Hedge Counterparty Exposure</b> ” detail report (see below)
Test Sum	The result of the calculation against each Major Capital Test before performing the actual test.
Result	The result of whether the test has Passed or Failed.

## 4.9.2. Minor Capital Tests

The Minor Capital Tests consists of the following tests:

- Minor Capital Adequacy Test
- Minor Capital Loss Limit Test
- Net Asset Value Leverage Test
- Capital Note Maturity Test

These tests should include all Eligible and Ineligible Cash Investment and Synthetic Investments.

### 4.9.2.1. Summary Report

Report Name	Minor Capital Tests
Report No	2014

Rhinebridge PLC								
Minor Capital Test								
Day, DD Month, YYYY								
Minor Capital Test	I (Minor)	H (Minor) )	L	CN	CD	P	Q	I H Test Sum Result
<b>Minor Capital Adequacy Test</b> $I(\text{Minor}) + H(\text{Minor}) - L - CD - P - Q \geq 0$	xx	xx	xx	xx	xx	xx	xx	xx xx Pass / Fail
<b>Minor Capital Loss Limit</b> $I + H - L - CD \geq 0.7 \text{ CN}$				xx	xx		xx	xx xx Pass / Fail
<b>Net Asset Value Leverage Test</b> $(I + H - L - CD) / L \geq 0.0455$			xx	xx		xx	xx	xx xx Pass / Fail

## Definitions

Field	Description
I (Minor)	Total for "I (Minor)" from the " <b>Amended Market Value of Cash Investments</b> " detail report (see below) + Cash at Hand (USD Equivalent)
H (Minor)	Total for "Adjusted MV (Minor)" from the " <b>Amended Market Value of Hedge Counterparty Exposure</b> " detail report (see below)
L	Total Market Value of all Senior Funding from the " <b>Average Cost Analysis (Senior Notes)</b> " report. NB: This report <del>was</del> also need to include TRP and RP (Repos).
CN	Par Value of all Capital Notes (includes SUBNOTE_ and JNOTES and CNOTE) – relates to Mezzanine Capital Notes and Junior Capital Notes and Senior Capital Notes
CD	Total for "Breakage Fee (CD)" from the " <b>Amended Market Value of Cash Investments</b> " detail report (see below)
P	Total Additional Capital Requirement (P) – see below
Q	Total Hedge Additional Capital Requirement (Q) – see below
I	Total "MV from the " <b>Amended Market Value of Cash Investments</b> " detail report (see below) + Cash at Hand (USD Equivalent)
H	Total "MV from the " <b>Amended Market Value of Hedge Counterparty Exposure</b> " detail report (see below)
Test Sum	The result of the calculation against each Major Capital Test before performing the actual test.
Result	The result of whether the test has Passed or Failed.

#### 4.9.2.2. Detail Reports – Amended Market Value of Cash Investments

Report Name	Amended MV of Cash Investments
Report No	2015

These tests should include all Eligible and Ineligible Cash Investment

Rhinebridge PLC										
Amended Market Value of Cash Investments										
Day, DD Month, YYYY										
Product	Counterparty	CCY	Rating	WAL of Investment	Eligible	PAR Value	MV	Senior Notes WAL (Months)	WAL of Senior Funding Factor (Moody's only)	Complexity Factor
B_12345										
B_65789										
MMF76887										
<i>Total</i>										

## Definitions

## • Group by Sub Sector

Field	Description
Product	Product.ProductID
Counterparty	Counterparty Name
CCY	Product.CurrencyCode
Rating	The S&P or Moody's Deemed (Derived) Rating depending on relevant agency test
WAL of Investment	PNL Value.AverageLife
Eligible	“Ineligible” if Ineligible tag has been selected against the counterparty associated with the Investment otherwise “Eligible”
PAR Value	PAR Value associated with Investment
MV	Market Value of Investment (see <u>Definitions – Market Value above</u> )
Senior Notes WAL (Months)	The Weighted Average Life of Senior Funding based on Market Value that is used to determine the WAL of Senior Funding Factor (Moody's and Fitch Only)
WAL of Senior Funding Factor (Moody's Only)	<ul style="list-style-type: none"> <li>• If S&amp;P then = 1.0</li> <li>• If Moody's or Fitch see <u>WAL Senior Funding Factor below</u>.</li> </ul>
Base Capital Req	See section on <u>Base Capital Requirement below</u> .
Complexity Factor	If S&P then = 1.0 otherwise:
	Complexity = Vanilla 0.95
	Complexity = Pre-Paying 1.0
	Complexity = Complex 1.20
Issuer Concentration Factor	<ul style="list-style-type: none"> <li>• If Moody's then see section on <u>Issuer Concentration Factor below</u></li> <li>• Otherwise 1.0</li> </ul>
FX Penalty Factor	<ul style="list-style-type: none"> <li>• If Currency = USD then 1.0,</li> <li>• If Currency &lt;&gt; USD, [1.0]</li> </ul>
Investment Capital Requirement	<ul style="list-style-type: none"> <li>• If Eligible = Base Capital Requirement x Complexity Factor x FX Penalty Factor x WAL of Senior Funding Factor x Issuer Concentration Factor</li> <li>• If Ineligible = 1.0</li> </ul>
I (Major)	= (MV x (1 – Investment Capital Requirement))

Field	Description
I (Minor)	If Eligible = $(MV \times (1 - (Investment Capital Requirement * (100 / 70))))$ If Ineligible = $(MV \times (1 - Investment Capital Requirement))$
Total	A total of all columns should be shown

#### 4.9.2.3. Detail Reports – Amended Market Value of Hedge Counterparty Exposure

- These tests should include all Eligible and Ineligible Derivatives that have a net positive Market Value against each Hedge Counterparty Exposure.
- The Report should be grouped by Parent (Obligor) Counterparty which represents a Hedge Counterparty

Report Name	Amended MV of Hedge Counterparty Exposure
Report No	2020

Rhinebridge PLC									
Amended Market Value of Hedge Counterparty Exposure									
Day, DD Month, YYYY									
Product	Counterparty	CCY	Rating	WAL of Derivative	Eligible / Ineligible	MV	Base Capital	FX Penalty Factor	Issuer Concentration Factor
SWAPA123	CPTY1	USD	AAA	1.5	Eligible	1.25	0.0012	1.0	
SWAPCPBL	CPTY1	GBP	AAA	2.2	Eligible	2.50	0.0025	1.0	
FRAA234	CPTY1	EUR	AAA	3.5	Eligible	-1.25	0.0030	1.0	
						<b>2.50</b>			
SWAPA245	CPTY2	USD	AAA	5.2	Eligible	-3.00			
SWAPA895	CPTY2	GBP	AAA	2.5	Eligible	1.50			
FRAA6786	CPTY2	EUR	AAA	1.5	Eligible	-2.50			
						<b>-4.00</b>			
<b>Total</b>						<b>-1.50</b>			
									<b>-1.50569</b>

## Definitions

## Group by Obligor (Parent Counterparty)

Field	Description
Product	Product.ProductID
Counterparty	Child Counterparty Name
CCY	Product.CurrencyCode
Deemed Rating	The S&P or Moody's Deemed (Derived) Rating depending on relevant agency test
WAL of Derivative	PNL Value.AverageLife
Eligible / Ineligible	"Ineligible" if Ineligible tag has been selected against the counterparty associated with the Investment otherwise "Eligible"
MV	Market Value of Derivative (see Definitions – Market Value above)
Base Capital Req	If "Sub Total MV" against counterparty is negative then leave blank, otherwise if positive then See section on Base Capital Requirement below.
FX Penalty Factor	Set to 1.0 for Closing
Issuer Concentration Factor	<ul style="list-style-type: none"> <li>• If Moody's then see section on Issuer Concentration Factor below</li> <li>• Otherwise 1.0</li> </ul>
Investment Capital Requirement	<p>If "Sub Total MV" against counterparty is negative then leave blank, otherwise if positive then</p> <ul style="list-style-type: none"> <li>• If Eligible = Base Capital Requirement x FX Penalty Factor x Issuer Concentration Factor</li> <li>• If Ineligible = 1.0</li> </ul>
Adjusted MV (Major)	<p>If Investment Capital Requirement is "Blank" then use 0.0 as Investment Capital Requirement  <math>= (MV \times (1 - Investment\ Capital\ Requirement))</math></p>
Adjusted MV (Minor)	<p>If Investment Capital Requirement is "Blank" then use 0.0 as Investment Capital Requirement  <math>If\ Eligible = (MV \times (1 - (Investment\ Capital\ Requirement * (100 / 70))))</math></p>
Sub Total	Total "MV", "Adjusted MV (Major)" and "Adjusted MV (Minor)" against each Counterparty
Total	A total of all columns should be shown

#### 4.9.2.4. Capital Note Maturity Test

This test is one of the Minor Capital Tests

Summary Report - Capital Note Maturity Test (Minor Capital Test)

Period (Month)	Portfolio Amortised	Liabilities Amortised	Portfolio Amortised minus Liabilities Amortised	Result

Definition

Field	Definition
Period	List Periods where "au" < 0 (see Assets (Portfolio) Detail Report below) If au >= 0 against all periods then print " <b>Portfolio Amortised is greater than Liabilities Amortised for all Periods</b> " under the column Headings
Portfolio Amortised	= at against period where "au" < 0 (see Assets (Portfolio) Detail Report below)
Liabilities Amortised	= bu against period where "au" < 0 (see Liabilities Detail Report below)
Portfolio Amortised minus Liabilities Amortised	= Portfolio Amortised minus Liabilities Amortised
Result	= IF(Portfolio Amortised minus Liabilities Amortised < 0, "FAIL", "PASS")

## Detail Report - Capital Note Maturity Test - (Requirement)

<b>Total Capital Required</b>		<b>Amount</b>
Restricted Cash Investment Capital		xx,xxx,xxx
Restricted Hedge Counterparty Exposure Capital		xx,xxx,xxx
Buffer		xx,xxx,xxx
Minor Capital Adequacy		xx,xxx,xxx
<b>Total Spare Capital</b>		xx,xxx,xxx
<b>Total Capital Required</b>		xx,xxx,xxx

## Definition

Field	Reference	Definition
Restricted Cash Investment Capital	a	= If ("Eligible" and "Investment Capital Requirement" <> 1.0, Sum ( MV of Cash Investment x Investment Capital Requirement x Investment Capital Requirement))
Restricted Hedge Counterparty Exposure Capital	b	= If ("Eligible" and "Investment Capital Requirement" <> 1.0, Sum ( MV of Hedge x Investment Capital Requirement x Investment Capital Requirement))
Buffer		= Capital Buffer Percentage x Total Liabilities
Minor Capital Adequacy Result	□	where: 1. Capital Buffer Percentage is entered in the "Capital Buffer Percentage" field within the "Fund" tab of the "Maintenance" window which can be accessed from the "Tools" menu 2. Total Liabilities = L + CN
<b>Total Spare Capital</b>		= The result of the Minor Capital Adequacy Test
<b>Total Capital Required</b>	d	= "Minor Capital Adequacy Result" minus Buffer i.e.: = Max (0, □ - c) = The difference of: (i) the Total Capital Notes Outstanding Par (f + g + ba) (ii) the greater of (a) zero and (b) the difference of the then current output from the Minor Capital Adequacy Test and Buffer

## Detail Report - Capital Note Maturity Test – (Breakdown)

Capital Breakdown	Amount	%age of Par	Expected Long Term Leverage Ratio	Spare
<b>Total Capital Notes</b>	330,000,000	16.67%		157,938,691
SCN	130,000,000	6.57%	1.5	
MCN	160,000,000	8.08%	0.23529	
JCN	40,000,000	2.02%		
<b>Total Senior Notes</b>	<b>1,650,000,000</b>	<b>83.33%</b>		
CP	1,300,000,000	65.66%		
MTN	350,000,000	17.68%		
Repo	0	0.0%		
<b>TOTAL</b>	<b>1,980,000,000</b>	<b>100.0%</b>		

## Definition

Field	Reference	Definition
Amount (Total Capital Notes)	aa	= f + g + ba
Amount (SCN)	ba	= Par Value of all Senior Capital (i.e. TradeType = CNOTE)
Amount (MCN)	f	= Par Value of all Mezzanine Capital (i.e. TradeType = SUBNOTE_)
Amount (JCN)	g	= Par Value of all Junior Capital (i.e. TradeType = JNOTE)
Amount (Total Senior Notes)	e	= ab + ac + ad
Amount (CP)	ab	= Par Value of All Commercial Paper (i.e. TradeType = USCP, IECP)
Amount (MTN)	ac	= Par Value of All Medium Term Notes (i.e. TradeType = USMTN, EMTN)
Amount (Repo)	ad	= Par Value of All Repo (i.e. TradeType = RP, TRP)
<b>Amount (Total)</b>	<b>h</b>	<b>= aa + e</b>

Field	Reference	Definition
% age Par (Total Capital Notes)	ae	= j + k + bb
% age Par (SCN)	bb	= ba / h
% age Par (MCN)	j	= f / h
% age Par (JCN)	k	= g / h
% age Par (Total Senior Notes)	i	= af + ag + ah
% age Par (CP)	af	= ab / h
<b>% age Par (MTN)</b>	ag	= ac / h
<b>% age Par (Repo)</b>	ah	= ad / h
<b>%age Par (Total)</b>	1	= ae + j
Expected Long Term Leverage (Senior Notes)	m	Blank
Expected Long Term Leverage (SCN)	bc	= 5.5 / 5.5 (to be provided by Rhinebridge) (i.e JCN + MCN / SCN)
Expected Long Term Leverage (MCN)	n	= 1.0 / 6.0 (to be provided by Rhinebridge) (i.e JCN / MCN)
Leverage (JCN)	o	= 1 to be provided by Rhinebridge
Leverage (Total Capital Notes)	p	Blank
Required ( Senior Notes)	q	Blank
Spare (Total Capital Notes)	x	= "Minor Capital Adequacy Result" minus Buffer i.e.: = max (0, □ - c)

## Detail Report - Capital Note Maturity Test Detail

This is an Excel Extract

Liabilities	0	1	2	3	4	5	6	7	8	9	...	120
<b>Amortisation Schedule</b>												
Opening Bal SCN												
SCN Amortisation												
Closing Bal SCN												
Opening Bal MCN												
MCN Amortisation												
Closing Bal MCN												
Opening Bal JCN												
JCN Amortisation												
Closing Bal JCN												
<b>Cumulative Capital Notes Amortising</b>												
SCN maturing												
MCN maturing												
JCN maturing												
Relative Leverage												
Amortisation												
SCN Outstanding Par												
Amount												
MCN Outstanding Par												
Amount												
JCN Outstanding Par												
Amount												
MCN Relative Leverage												
Amortisation												
SCN Relative Leverage												
Amortisation												
<b>Spare CN amortised</b>												
Spare MCN Amortised												
Spare JCN amortised												
Total Spare Capital												
Cumulative CN Amortisation												

Liabilities	Month											
	0	1	2	3	4	5	6	7	8	9	...	120
Cumulative Spare Capital Amortisation												
Cumulative Non-Spare Capital Amortisation												
<b>Total Liabilities to be Amortised</b>												
Cumulative Spare Capital Amortisation												
Cumulative Non-Spare Capital Amortisation												
Cumulative Senior Notes Amortisation												
Cumulative Total Liability Amortisation												

Assets (Portfolio)	0	1	2	3	4	5	6	7	8	9	...	120
<b>Amortisation Schedule</b>												
Opening Bal Portfolio												
Portfolio Amortisation												
Closing Bal Portfolio												
<b>Cumulative Portfolio Amortising</b>												
<b>Cumulative Portfolio Amortising minus Cumulative Total Liability Amortisation</b>												
<b>Result</b>												

## Definition

- There should be two sections to this Report:
  - Liabilities
  - Assets (Portfolio)

## Liabilities

Field	Reference	Definition
Month		Months should be presented across the report from 0 to 120 months (represents 10 years) (see Month Table below)
<b>Amortisation Schedule</b>		
Opening Bal SCN (month 0)	bd	=sum(Par Value for all CNOTE_) as at Fund Date
Opening Bal SCN (month 1 to 120)	be	= (bg) where Month = Month - 1 (i.e. Closing Bal SCN from previous month)
SCN Amortisation	bf	= sum( Payment Amount ) where TradeType = CNOTE_ and Payment.Type = PRI and

Field	Reference	Definition
		((Payment.PayDate + 60 months minus Fund Date) => Month.StartMonth and (see Month table below) ((Payment.PayDate + 60 months) minus Fund Date) =< Month.EndMonth (see Month table below)
		<b>NB: Exception</b> <b>If a date is entered into the “PutDate” field then the Expected Maturity Date used in the above calculation should be the “PutDate” rather than the Payment.PayDate + 60 months</b>
Closing Bal SCN	bg	= IF(Month = 0, bd -bf, be -bf)
Opening Bal MCN (month 0)	y	sum (Par Value for all SUBNOTE_) as at Fund Date
Opening Bal MCN (month 1 to 120)	z	= (ab) where Month = Month - 1 (i.e. Closing Bal MCN from previous month)
MCN Amortisation	aa	= sum( Payment Amount) where TradeType = SUBNOTE_ and Payment.Type = PRI and ((Payment.PayDate + 60 months) minus Fund Date) => Month.StartMonth and (see Month table below) ((Payment.PayDate + 60 months) minus Fund Date) =< Month.EndMonth (see Month table below)
		<b>NB: Exception</b> <b>If a date is entered into the “PutDate” field then the Expected Maturity Date used in the above calculation should be the “PutDate” rather than the Payment.PayDate + 60 months</b>
Closing Bal MCN	ab	= IF(Month = 0, y -aa, z -aa)
Opening Bal JCN (month 0)	ac	=sum (Par Value for all JNOTE) as at Fund Date
Opening Bal JCN (month 1 to 120)	ad	= (af) where Month = Month - 1 (i.e. Closing Bal MCN from previous month)
JCN Amortisation	ae	= sum( Payment Amount) where

Field	Reference	Definition
		TradeType = JNOTE and Payment.Type = PRJ and ((Payment.PayDate + 60 months) minus Fund Date) => Month.StartMonth and (see Month table below) ((Payment.PayDate + 60 months) minus Fund Date) =< Month.EndMonth (see Month table below)
		<b>NB: Exception</b> <b>If a date is entered into the “PutDate” field then the Expected Maturity Date used in the above calculation should be the “PutDate” rather than the Payment.PayDate + 60 months</b>
Closing Bal JCN	af	= IF(Month = 0, ac -ae, ad -ae)
<b>Cumulative Capital Notes Amortising</b>	bi	= bh + ag + ah
SCN maturing	bh	IF (Month = 0, bf where Month = 0, sum ( bf ) between Month and Month 0)). This is a cumulative sum of the SCN amortisation from Month 0 to the month concerned.
MCN maturing	ag	IF (Month = 0, aa where Month = 0, sum ( aa ) between Month and Month 0)). This is a cumulative sum of the MCN amortisation from Month 0 to the month concerned.
JCN maturing	ah	IF (Month = 0, ae where Month = 0, sum ( ae ) between Month and Month 0)). This is a cumulative sum of the JCN amortisation from Month 0 to the month concerned.
<b>Relative Leverage Amortization</b>		
SCN Outstanding Par Amount	bx	= ba - bh (NB: ba = Par Value of all Senior Capital (i.e. TradeType = CNOTE) is the same for each period )
MCN Outstanding Par Amount	bj	= f - ag (NB: f = Par Value of all Mezzanine Capital (i.e. TradeType = SUBNOTE ) is the same for each period )
JCN Outstanding Par Amount	bk	= g - ah (NB: g = Par Value of all Junior Capital (i.e. TradeType = JNOTE ) is the same for each period )

Field	Reference	Definition
MCN Relative Leverage Amortisation	bl	= MAX(0, bj - bk / n)
SCN Relative Leverage Amortisation	bm	= Max (0, bx - (bj + bk - bl) / bc )
<b>Spare CN amortised</b>		
Total Spare Capital	bn	= x
Cumulative CN Amortisation	bo	= bi + bl + bm
Cumulative Spare Capital Amortisation	bp	= MIN (bn, bo)
Cumulative Non-Spare Capital Amortisation	bq	= MAX(0, bo - bp)
<b>Total Liabilities to be Amortised</b>		
Cumulative Spare Capital Amortisation	br	= bp
Cumulative Non-Spare Capital Amortisation	bs	= bq
Cumulative Senior Notes Amortisation	bt	= bs / d x e i.e. bs / d multiplied by e

Field	Reference	Definition
Cumulative Total		
Liability	bu	= br + bs + bt
Amortisation		

**Assets (Portfolio)**

Field	Reference	Definition
Month		Months should be presented across the report from 0 to 120 months (represents 10 years) (see Month Table below)
<b>Amortisation Schedule</b>		=sum (Par Value for all Investments) as at Fund Date (removed USD equiv of Cash at Hand)
Opening Bal Portfolio (month 0)	ap	= (as) where Month = Month – 1 (i.e. Closing Bal MCN from previous month)
Opening Bal Portfolio (month 1 to 120)	aq	= sum( Payment.Amount) where TradeType = All Investments and Payment.Type = PRI and (Payment.PayDate minus Fund Date) => Month.StartMonth and (see Month table below) (Payment.PayDate minus Fund Date) =< Month.EndMonth (see Month table below)
Portfolio Amortisation	ar	= IF(Month = 0, ap – ar, aq – ar)
Closing Bal Portfolio	as	IF (Month = 0, ar + Cash at Hand (USD Equiv) where Month = 0, sum ( ar ) + Cash at Hand (USD Equiv between Month and Month 0)). This is a cumulative sum of the Portfolio amortisation from Month 0 to the month concerned.
<b>Cumulative Portfolio Amortising minus Cumulative Total Liability Amortisation</b>	au	= at – bu

Field	Reference	Definition
<b>Result</b>	av	= IF ( au >= 0, "Satisfied", "Unsatisfied" )

## Month Definition

Month	StartMonth	EndMonth
0	0	0
1	0	30
2	31	60
3	61	90
...		
120	3571	3600

Where:

Field	Definition
Month	Months 1 to 120
StartMonth	= IF (Month = 0, 0, (Month - 1),EndMonth)
EndMonth	= IF (Month = 0, 0, (StartMonth + 29))

### 4.9.3. Cash Trapping Mechanism Test

- This test is only required for Moodys
- This test will also need to be added to the Test Summary Screen

Report Name	Cash Trapping Mechanism Test		
Report No			
Report Group	Capital		

Rhinetridge PLC							
Cash Trapping Mechanism Test							
Day, DD Month, YYYY							
Day	Date	Cash Equivalent	Cash from Assets >= A3	Daily Cash Inflow	Cumulative Cash Inflow	Maturing Senior Capital Notes	Maturing Mezzanine Capital Notes
1	dd/mm/yyyy	xx.aaaaaaa	xx.aaaaaaaa	xx.aaaaaaaa	xx.aaaaaaaa	xx.aaaaaaaa	xx.aaaaaaaa
2	dd/mm/yyyy	xx.aaaaaaa	xx.aaaaaaaa	xx.aaaaaaaa	xx.aaaaaaaa	xx.aaaaaaaa	xx.aaaaaaaa
....	dd/mm/yyyy	xx.aaaaaaa	xx.aaaaaaaa	xx.aaaaaaaa	xx.aaaaaaaa	xx.aaaaaaaa	xx.aaaaaaaa
365	dd/mm/yyyy	xx.aaaaaaa	xx.aaaaaaaa	xx.aaaaaaaa	xx.aaaaaaaa	xx.aaaaaaaa	xx.aaaaaaaa

Definition

Field	Reference	Definition
Day	A	1 to 365

Field	Reference	Definition
Date	B	= IF (Day (A) = 1, FundDate, Date (from previous row) + 1 day)
Cash Equivalent	C	= IF (Day (A) = 1, Sum (Par Value of all assets where Sub Sector = "CASH EQUIVALENT") + Sum (USD Equiv of Cash at Hand), 0)
		= Payment.Payment Where Payment.Type = "PRI" ListMember.ListCode = "A" and Sub Sector $\leftrightarrow$ "CASH EQUIVLENT" and Rating.CoarseLevel = < 3 and Payment.PayDate = Date (B)
Cash from Assets >= A3	D	
Daily Cash Inflow	E	= C + D
Cumulative Cash Inflow	F	= IF( Day (A) = 1, E, E + F(where Day = "A" - 1) ) i.e. use the F from the previous day. This is a cumulative calculation
Maturing Senior Capital Notes	G	= Payment.Payment Where Payment.Type = "PRI" and TradeTypeID = "CNOTE" Payment.PayDate = Date (B)
Maturing Mezzanine Capital Notes	H	= Sum (Payment.Payment) Where Payment.Type = "PRI" and TradeTypeID = "SUBNOTE" Payment.PayDate = Date (B)
Maturing Junior Capital Notes	I	= Sum (Payment.Payment) Where Payment.Type = "PRI" and TradeTypeID = "JNOTE" Payment.PayDate = Date (B)
Daily Cash Outflow	J	= G + H + I

Field	Reference	Definition
Cumulative		$= IF( Day(A) = 1, J, J + K (where Day = "A" - 1) )$
Cash Outflow	K	i.e. use the K from the previous day. This is a cumulative calculation
Result	L	$= IF (F >= K, "PASS", "FAIL")$

#### 4.9.4.1. Summary Report

Report Name	Senior Capital Note Interest Coverage Test		
Report No			
Report Group	Capital		

Rhinebridge PLC						
Senior Capital Note Interest Coverage Test						
Senior		Senior Day, DD Month, YYYY				
Asset Weighted Average Spread over LIBOR	Senior Mgmt Fee (%age of Asset Par Value)	Annual Variable Expenses (%age of Asset Par Value)	Annual Fixed Expenses (%age of Asset Par Value)	Asset Par Value	Senior Debt Weighted Average Spread over LIBOR	Senior Capital Notes Weighted Average Spread over LIBOR
A	B	C	D	E	F	G
xx.XXXXXX	xx.XXXXXX	xx.XXXXXX	(xx.XXXXXX)	(xx.XXXXXX)	xx.XXXXXX	xx.XXXXXX

#### Definition

Field	Reference	Definition
Asset Weighted Average Spread over	A	= Sum (Par Value x DM) / Total Portfolio Par Value) Where: 1. ListMember.ListCode = "A" and USD Equivalent of CashAtHand 2. Assume DM = Zero when Sub Sector = "CASH EQUIVALENTS" and CashAtHand

Field	Reference	Definition
LIBOR		3. For all other Assets DM = "Product.Yield"
Senior Mgmt Fee (%age of Asset Par Value)	B	= Senior Management Fee entered by QSR Finance (see F7.0 Fees and Expenses below)
Annual Variable Expenses (%age of Asset Par Value)	C	= Annual Variable Expenses entered by QSR Finance (see F7.0 Fees and Expenses below)
Annual Fixed Expenses (%age of Asset Par Value)	D	= Annual Fixed Expenses entered by QSR Finance (see F7.0 Fees and Expenses below)
Asset Par Value	E	= Total Portfolio Par Value (including CashArHand)
Senior Debt Obligations Weighted Average Spread over LIBOR	F	= Sum ((USD Notional x All in Cost) / Total Senior Debt USD Notional ) Where: 1. Reverse the sign of Notional wherever used in the equation above 2. ListMember.ListCode = "D" 3. Assume "All in Cost" = Zero when TradeTypeID = "USCPBF" 4. For all other Senior Debt "All in Cost" = "Product.AllInYield" = Sum ( USD Notional )
Senior Debt Notional	G	Where : 1. Reverse the sign of Notional wherever used in the equation above 2. ListMember.ListCode = "D" = Sum ((USD Notional x All in Cost) / Total Senior Capital Notes USD Notional )
Senior	H	

Field	Reference	Definition
Capital Notes Weighted Average Spread over LIBOR		Where: 1. Reverse the sign of Notional wherever used in the equation above 2. TradeTypeID = "CNOTE" (Senior Capital Notes)
Senior Capital Notes Notional	I	= Sum ( USD Notional) Where : 1. Reverse the sign of Notional wherever used in the equation above 2. TradeTypeID = "CNOTE"
$(A - B - C - D) \times E - F \times G - H \times I$	J	= $(A - B - C - D) \times E - F \times G - H \times I$
Result	K	= IF ( "J" >= 0, "PASS", "FAIL")

#### 4.9.5. Dispersion Test

- This test should be run against Capital only where Trade Type ID = CNOTE, JNOTE and SUBNOTE\_
- Test Summary – a row should be added to the Test Summary showing the overall result of this Test. i.e If any

##### 4.9.5.1. Summary Report

Report Name	Dispersion Test
Report No	
Report Group	Capital

<b>Rhinebridge PLC</b> Dispersion Test Day, DD Month, YYYY					
Product ID	Expected Maturity Date	Principal Balance	%age Principal Balance	Limit	Result
<b>=&lt; 1 year</b>					
CNOTE1	30 April 2008	10.000000	2.20%		
JNOTE1	30 April 2008	10.000000	2.20%		
SUBNOTE_1	30 April 2008	10.000000	2.20%		
		<b>30.000000</b>	<b>6.59%</b>	<b>30.00%</b>	<b>PASS</b>
<b>&gt;1 year =&lt; 2 year</b>					
CNOTE2	30 April 2009	15.000000	3.30%		
JNOTE2	30 April 2009	10.000000	2.20%		
SUBNOTE_2	30 April 2009	20.000000	4.40%		
		<b>45.000000</b>	<b>9.89%</b>	<b>30.00%</b>	<b>PASS</b>
<b>&gt;2 year =&lt; 3 year</b>					
CNOTE3	30 April 2010	10.000000	2.20%		
JNOTE3	30 April 2010	20.000000	4.40%		
SUBNOTE_3	30 April 2010	20.000000	4.40%		
		<b>50.000000</b>	<b>10.99%</b>	<b>30.00%</b>	<b>PASS</b>
<b>&gt;3 year =&lt; 4 year</b>					
CNOTE4	30 April 2011	15.000000	3.30%		
JNOTE4	30 April 2011	10.000000	2.20%		
SUBNOTE_4	30 April 2011	25.000000	5.49%		
		<b>50.000000</b>	<b>10.99%</b>	<b>30.00%</b>	<b>PASS</b>
<b>&gt;4 year =&lt; 5 year</b>					
CNOTE5	30 April 2012	10.000000	2.20%		
JNOTE5	30 April 2012	10.000000	2.20%		
SUBNOTE_5	30 April 2012	10.000000	2.20%		
		<b>30.000000</b>	<b>6.59%</b>	<b>35.00%</b>	<b>PASS</b>
<b>&gt;5 year =&lt; 6 year</b>					
CNOTE6	30 April 2013	10.000000	2.20%		

Rhinebridge PLC Dispersion Test Day, DD Month, YYYY					
Product ID	Expected Maturity Date	Principal Balance	%age Principal Balance	Limit	Result
JNOTE6	30 April 2013	15.000000	3.30%		
SUBNOTE_6	30 April 2013	20.000000	4.40%		
		<b>45.000000</b>	<b>9.89%</b>	<b>35.00%</b>	<b>PASS</b>
<b>&gt;6 year =&lt; 7 year</b>					
CNOTE7	30 April 2014	15.000000	3.30%		
JNOTE7	30 April 2014	20.000000	4.40%		
SUBNOTE_7	30 April 2014	10.000000	2.20%		
		<b>45.000000</b>	<b>9.89%</b>	<b>35.00%</b>	<b>PASS</b>
<b>&gt;7 year</b>					
CNOTE9	30 April 2016	50.000000	10.99%		
JNOTE9	30 April 2016	50.000000	10.99%		
SUBNOTE_9	30 April 2016	60.000000	13.19%		
		<b>160.000000</b>	<b>35.16%</b>	<b>100.00%</b>	<b>PASS</b>
<b>Total</b>		<b>455.000000</b>	<b>100.00%</b>		

**Definition**

- This test should be run against Capital only where Trade Type ID = CNOTE, JNOTE and SUBNOTE
- Group as follows

Group	Reference	Description
=< 1 year	A	Where the Expected Maturity Date =< Today + 365 days
>1 year =< 2 year	B	Where Expected Maturity Date > A =< A + 365 days
>2 year =< 3 year	C	Where Expected Maturity Date > B =< B + 365 days
>3 year =< 4 year	D	Where Expected Maturity Date > C =< C + 365 days
>4 year =< 5 year	E	Where Expected Maturity Date > D =< D + 365 days
>5 year =< 6 year	F	Where Expected Maturity Date > E =< E + 365 days
>6 year =< 7 year	G	Where Expected Maturity Date > F =< F + 365 days
>7 year	H	Where Expected Maturity Date > G

Field	Reference	Definition
ProductID	I	ProductID Associated with Position
Expected Maturity Date	J	=MAX (Payment.PayDate), where Payment.Type = "PRI" associated with Position.
Principal Balance	K	= Par Value associated with Position
Sub Total Principal Balance	L	=SUM (K) for each group
Total Principal balance	M	=SUM (K) across all groups
%age Principal Balance	N	= K / M (expressed as %age)
Sub Total %age	O	= SUM (N) for each group

Field	Reference	Definition
Principal Balance		
Total %age Principal Balance	P	= SUM (N) across all groups NB: This should = 100.00%
Limits	Q	Limits are as indicated above at the Group Level
Result	R	= IF( O =< Q, "PASS", "FAIL")

#### 4.9.6. WAL of Senior Funding Factor (Moody's Only)

Weighted Average Life of Senior Funding (years) = Weighted Average Life of Programme which is calculated using the MV of Senior Funding.

- This is shown in years and should therefore be translated into months before referring to Appendix E to determine the "WAL of Senior Funding Factor".
- Where the Weighted Average Life does not exactly correspond to the Moody's table, a Weighted Average Senior Funding Factor should be calculated using linear interpolation.

#### 4.9.7. Base Capital Requirement

NB: The Haircut Matrix tables currently display yearly specific haircuts. Morgan Stanley / IKB are expected to supply Monthly Specific haircuts and therefore, monthly specific haircuts will not need to be calculated using linear interpolation between yearly points

Investment Type	Base Capital Requirement
Ineligible Cash Investments	1.0
All other Eligible Cash Investments [IKB] to be confirmed	See below for S&P, Moody's and Fitch

##### 4.9.7.1. S&P

Haircut Matrices	Description
Appendix B	For all Eligible Cash Investments.
IKB / MS to define (existing matrices is shown in <u>Appendix E</u> )	For all Derivatives

##### Eligible Cash Investments

The Base Capital Requirement for all Eligible Cash Investments should be determined by referring to the S&P Haircut matrices Appendix B based on the following factors for each investment and then dividing by 100:

- Deemed Rating
- Weighted Average Life of Investment (Rounded to the nearest month)
- Capital Investment Class associated with Sub Sector (see Sub Sector above)

For the purpose of determining the Base Capital Requirement for specific Investments, the Weighted Average Life of each Investment should be rounded to the nearest month.

##### Example 1

Investment which has:

Capital Investment Class = RMBS  
 Weighted Average Life = 60 months (5years)  
 Deemed S&P Rating = AA+

The haircut associated with the above investment = 4.53

The Base Capital Requirement = 4.53 / 100 = 0.0453

## For All Derivatives

The Base Capital Requirement for all Eligible Derivatives should be determined by referring to the S&P Haircut matrices Appendix F based on the following factors for each Derivative and then dividing by 100:

- Deemed Rating
- Weighted Average Life of Derivative (Rounded to the nearest month)

### 4.9.7.2. Moody's

Haircut Matrices	Description
<u>Appendix C</u> IKB / Morgan Stanley to provide Monthly Base Capital Requirement after applying Moody's Category Factors	For all Eligible Cash Investments when Investment WAL > WAL Senior Funding.
<u>Appendix D</u>	For all Eligible Cash Investments when Investment WAL <= WAL Senior Funding. NB: This matrix is not dependent on the Capital Investment Class
<u>Appendix G</u>	For all Derivatives

The Base Capital Requirement should be determined by referring the Moody's Haircut matrices based on the following factors for each investment and then dividing by 100

- Deemed Rating
- Weighted Average Life of Investment (Rounded to the nearest month)
- Capital Investment Class associated with Sub Sector (see Sub Sector above)

For the purpose of determining the Base Capital Requirement for specific Investments, the Weighted Average Life of each Investment should be rounded to the nearest month.

#### *Example 1.*

#### *Investment which has: Weighted Average Life of Investment > WAL of Senior Funding*

Capital Investment Class = RMBS  
Weighted Average Life = 60 months (5years)  
Deemed Moody's Rating = Aa1

Use RMBS Matrix for Moody's

The haircut associated with the above investment = 3.64

The Base Capital Requirement = (Haircut / 100) = (3.64 / 100)  
= 0.036400

#### *Example 2. Weighted Average Life of Investment < WAL of Senior Funding*

Investment which has:

Capital Investment Class = RMBS  
Weighted Average Life = 4 months  
Deemed S&P Rating = AA+

Use Appendix D Moody's Short Maturity Base Capital Requirements for Cash Investments

The haircut associated with the above investment = 0.011

The Base Capital Requirement = (Haircut / 100) = (0.011 / 100)  
= 0.0001100

### For All Derivatives

The Base Capital Requirement for all Derivatives should be determined by referring to the Moody's Haircut matrix Appendix G based on the following factors for each derivative and then dividing by 100:

- Deemed Rating
- Weighted Average Life of Derivative (Rounded to the nearest month)

#### 4.9.7.3. Fitch

Haircut Matrices	Description
<u>Appendix B</u>	For all Eligible Cash Investments. EXCEPT where the Capital Investment Class associated with the Sub Sector = "CASH EQUIVALENT" in which case the Base Capital Requirement = 0.000000
<u>Appendix G</u>	For all Derivatives

### Eligible Cash Investments

The Base Capital Requirement for all Eligible Cash Investments should be determined by referring to the S&P Haircut matrices Appendix B based on the following factors for each investment and then dividing by 100:

- Deemed Rating
- Weighted Average Life of Investment (Rounded to the nearest month)
- Capital Investment Class associated with Sub Sector (see Sub Sector above)

For the purpose of determining the Base Capital Requirement for specific Investments, the Weighted Average Life of each Investment should be rounded to the nearest month.

#### Example 1

Investment which has:

Capital Investment Class = RMBS  
Weighted Average Life = 60 months (5years)  
Deemed Fitch Rating = AA+

The haircut associated with the above investment = 4.53

The Base Capital Requirement = 4.53 / 100 = 0.0453

### For All Derivatives

The Base Capital Requirement for all Eligible Derivatives should be determined by referring to the Moody's Haircut matrix Appendix G based on the following factors for each Derivative and then dividing by 100:

- Deemed Rating
- Weighted Average Life of Derivative (Rounded to the nearest month)

#### 4.9.8. Issuer Concentration Factor ( Moody's Only)

The Issuer Concentration Factor will be determined by the total exposure to the issuer (or sponsor, as the case may be) of the Investment expressed as a percentage of the total Market Value of the Investment and the Rating of the Investment. (Table 1). As per current method.

If all the Investments in an Issuer group have the same ratings, then the Issuer Concentration Factor may be sourced directly from the table below.

For example, for a 3.0% A/A, the Issuer Concentration Factor is 1.05

**Table 1: Issuer Concentration factor (in percentage terms)**

Concentration	BBB/Baa	A/A,	AA/Aa	AAA/Aaa
1%	0%	0%	0%	0%
2%	10%	0%	0%	0%
3%	20%	5%	5%	1.3%
4%	-	10%	10%	5.3%
5%	-	15%	15%	9.3%
6%	-	-	20%	13.3%
7%	-	-	25%	17.3%
8%	-	-	30%	21.3%

Linear interpolation applies.

##### 4.9.8.1. Issuer Concentration Factor by Percentage & Rating Matrix

Report Name	Issuer Concentration Factor by Percentage & Rating Matrix
Report No	2061

###### Definition

The existing Appendix 9 & 10 (1c) should be used and renamed as "Issuer Concentration Factor by Percentage & Rating Matrix"

If different Investments issued or guaranteed by any member of an Issuer Group have been assigned different Ratings, the following methodology will be followed to determine the Issuer Concentration factor:

- First, the percentage of Market Value per Rating for different Investments with different Ratings within the same Issuer Group will be calculated.
- Second, the percentages will be weighted by the factors in the table below, "Weighting Factors", to arrive to a total score. For example, if the total exposure to an Issuer Group is \$100MM, \$60MM of which in a AAA/Aaa Debt Obligation, \$30MM in a A/A2 Debt Obligation and \$10MM in a BBB/Baa2 Debt Obligation, the score will be :  $(0.6 \times 1) + (0.3 \times 120) + (0.1 \times 360) = 0.6 + 36 + 36 = 72.6$ . This score is then compared back to the "Weighted Factors" table on order to determine what rating to use from Table 1 in order to arrive at an Issuer Concentration Factor.
- If the score calculated above is not equal to one of the factors in the table below, it will be compared to the table to determine the two factors it falls between. The mid point of the two factors will be calculated and the score will be compared against it. If the score is less than the mid point, the total Issuer Concentration factor used will be that corresponding to the highest of the two Ratings, if the score is greater than the mid point, the total Issuer Concentration factor used will be that corresponding to the lowest of the two Ratings. In our example, the score of 72.6 falls between 70 and 120. The mid point is 95. Since  $72.6 < 95$ , the score is lower than the mid point, the Issuer Concentration is mapped to A+/A1 and the Issuer Concentration factor to be

used is that corresponding to A/A. Once a rating has been assigned to the Issuer by comparing the Weighted Factor derived (i.e. in the example above 72.6) to the "Weighting Factor" table, such rating, along with the total exposure to the Issuer should be used to look up the appropriate Issuer Concentration Factor from Table 1.

**Weighting Factors:**

Rating	Rating Factor
AAA/Aaa	1
AA+/Aa1	10
AA/Aa2	20
AA-/Aa3	40
A+/A1	70
A/A2	120
A-/A3	180
BBB+/Baa1	260
BBB/Baa2	360
BBB-/Baa3	610
BB+/Ba1	940
BB/Ba2	1350
BB-/Ba3	1766

**4.9.8.2. Issuer Concentration Factor for Split Rated Issuers**

Report Name	Issuer Concentration Factor for Split Rated Issuers
Report No	2074

**Definition**

The existing Appendix 9 & 10 (1b) should be used and renamed as "Issuer Concentration Factor for Split Rated Issuers"

#### 4.9.9. Total Additional Capital Requirement (P)

A series of Excel Extracts will also be produced to support the calculation of the Total Additional Capital Requirement (P).

Total Additional Capital Required = P

P = A + B + C

Where:

A = Total Additional Capital Charge for Group A

B = Total Additional Capital Charge for Group B

C = Total Additional Capital Charge for Group C

##### 4.9.9.1. Methodology

###### Method 1

This method should be used for determining the Additional Capital Charge for each Cash Investment against each separate test identified within Group A and C.

d = Grouped by, is a variable that is dependent on the specific portfolio parameter test, e.g. Investment Class or Sector or Sub Sector or Currency etc..

Reference	Field Name	Description / Calculation
a	Product ID	Product.ProductID
b	Notional	USD Factored Notional
c	Par Value	See <a href="#">Definition – Par Value</a> above
d	Grouped by	Variable depending on the specific portfolio parameter test
e	Base Capital Haircut	See <a href="#">Base Capital Requirement</a> above
f	% age Par TPV by Group	(Sum of c by Group) / <a href="#">Par Total Portfolio Value</a> (see above)
g	Operational Limit	Operational Limit associated with the group (see limits set within relevant Portfolio Parameter Test)
h	Eligible Limit	Eligible Limit associated with the group (see limits set within relevant Portfolio Parameter Test)
i	Eligible Limit Breach	= IF(d = "USD", MAX( 0, h - f ), MAX (0, f -h))
j	Operational Limit Breach	= IF(d = "USD", MAX( 0, g - i -f ), MAX(0, f - i - g ))
k	Eligible Penalty	= i / f
l	Non Operational Penalty	= j / f
m	%age Normal Capital Charge	= 1 - l - k
n	Base Capital Requirement	= c x e
o	Normal Capital Charge	= c x m x e
p	Non Operational Capital Charge	= l x c x (e x 1.10)
q	Eligible Capital Charge	= k x c
r	Additional Capital Charge	= ( o + p + q ) - n

- The exception for when the group is "USD" in the formula when determining the "Eligible Limit Breach" and "Operational Limit Breach" is because the limits against USD are minimum limits rather than maximum.

#### 4.9.9.2. Group A

**A = Total Additional Capital Charge for Group A = Sum (ab)**

Each investment will have been assigned to a Sub Sector which in turn is associated with a Sector and Investment Class.

##### Step 1

The Total Additional Capital Required for Group A is determined by firstly calculating the Additional Capital requirement against each Eligible Investment after testing against essentially three sets of limits:

- Sub Sector Limits
- Sector Limits and
- Investment Class Limits

Therefore, apply **Method 1** to determine the Additional Capital Charge for each investment after being grouped and tested against the limits for each group. I.e. Sub Sector, Sector and Investment Class.

These limits have been defined in two Portfolio Parameter Tests:

- Investment Class Concentration Test
- Sector Concentration Test – Structured Finance

This will result in returning three sets of Additional Capital Charge for each investment.

- r (Sub Sector)
- r (Sector)
- r (Investment Class)

(r = Additional Capital Charge for each investment –see above)

##### Step 2

Only one Additional Capital Charge for each Investment can be used to determine the "A" = Total Additional Capital Charge for Group A.

Therefore the next step is to determine which Additional Capital Charge for an investment is actually used to calculate "A".

Reference	Field Name	Description / Calculation
s	Product ID	Product.ProductID
t	r (Sub Sector)	Additional Capital Charge against Sub Sector Limits
u	r (Sub Sector ) Grouped by Sector	= Sum "r (Sub Sector)" grouped by Sector
v	r (Sector)	Additional Capital Charge against Sector Limits
w	r (Sector ) Grouped by Sector	= Sum "r (Sector)" grouped by Sector
x	Revised r (Sector)	= IF (w > u, v, t)
y	Revised r (Sector) Grouped by Investment Class	= Sum "Revised r (Sector)" grouped by Investment Class
z	r (Investment Class)	Additional Capital Charge against Investment Class Limits
aa	r (Investment Class) Grouped by Investment Class	= Sum "r (Investment Class)" grouped by Investment Class
ab	A (per Investment)	= IF (aa > y, z, x)

#### 4.9.9.3. Group B

B = Total Additional Capital Charge for Group B = "fy" (see below)

Each Investment will have been assigned a specific Agency Deemed Rating. There are four specific Rating related Portfolio Parameter Tests that will be the basis for determining the Total Additional Capital Required for Group B. The Portfolio Parameter tests are:

- **Maximum Normal Single Obligor - % of Total Portfolio Value**
- **Maximum Exceptional Single Obligor - % of Total Portfolio Value**
- **Maximum Single Obligor - % of Adjusted Net Asset Value**
- **Maximum Rating Composition Test**
- **Maximum Single Obligor - % of JCN Par Value**

Only one Additional Capital Charge for each Investment can be used to determine the "B" = Total Additional Capital Charge for Group B.

Therefore the final step after determining a set of Additional Capital Charge for each investment resulting from breaching any of the following set of Portfolio Parameter Tests (described in more detail further below):

- **Maximum Single Obligor - % of Total Portfolio Value Test**
- **Maximum Single Obligor - % Adjusted Net Asset Value Test**
- **Maximum Rating Composition Test**
- **Maximum Single Obligor - % of JCN Par Value**

is to determine which Additional Capital Charge for an investment is actually used to calculate "B". Using the following resulting set of Additional Capital Requirements from breaching each set of Portfolio Parameter Tests:

- r (% TPV)
- r (% NAV)
- r ( Rating)
- r (% JCN)

Reference	Field Name	Description / Calculation
ft	Product ID	Product.ProductID
fu	r (% TPV)	The sum of additional Capital Charge for each asset from testing against Maximum Single Obligor - % of Total Portfolio Value Test
fv	r (% NAV)	The sum of additional Capital Charge for each asset from testing against Maximum Single Obligor - % Adjusted Net Asset Value Test
fw	r (% Rating)	The sum of additional Capital Charge for each asset from testing against Maximum Rating Composition Test
fz	r (% JCN)	The sum of additional Capital Charge for each asset from testing against Maximum Single Obligor - % of JCN Par Value
fx	Additional Capital Requirement for an asset	Max( fw , ( fu + fv + fz ) )

Reference	Field Name	Description / Calculation
fy	B (Total Additional Capital for Group B)	= Sum (fx)

### ***Maximum Single Obligor - % of Total Portfolio Value Test***

The full set of Additional Capital Requirements from breaching any of the "Maximum Single Obligor - % of Total Portfolio Limits" for each investment (**excluding Cash Equivalents**) will be referred to as:

- $r ( \% TPV )$

Although there are two separate Portfolio Parameter tests;

- **Maximum Normal Single Obligor - % of Total Portfolio Value**
- **Maximum Exceptional Single Obligor - % of Total Portfolio Value**

defined against the Maximum Single Obligor - % of Total Portfolio Value, this is in fact just one test and the Normal and Exceptional limits are against different groups of investments.

Therefore, the same investment is not tested twice, except if the investment has been tagged to a Master Trust, in which case it is tested twice;

- i. once tested against the normal limits assuming the Single Obligor is the Parent Counterparty (Master Trust Series) and
- ii. then against the exceptional limits assuming the Single Obligor is the Master Trust (Master Trust Group) counterparty.

For the purpose of calculating a single set of Additional Capital Requirements against each investment resulting from breach of any of the limits within this test we will have to, however, group the tests together as "Overall (MT Series)", "Overall (MT Group)", "TPV Rating (MT Series)" or "TPV Rating (MT Group)".

A complete set of additional capital requirements (for all eligible investments) from breaching either the "Overall" or "Group Rating" limits will be referred to here as:

- $r ( ( MT Series \% TPV Overall )$
- $r ( ( MT Group \% TPV Overall )$
- $r ( MT Series \% TPV Rating )$
- $r ( MT Group \% TPV Rating )$

#### **Step 1**

Therefore, apply **Method 1** to determine the Additional Capital Charge for each investment after being grouped at the Single Obligor level (Parent (except if Master Trust and Exceptional in which case Master Trust is the Single obligor)) as well as Rating and tested against the limits for each group (Overall and Rating Groups).

These limits have been defined in two Portfolio Parameter Tests:

- **Maximum Normal Single Obligor - % of Total Portfolio Value**
- **Maximum Exceptional Single Obligor - % of Total Portfolio Value**

This will result in returning two sets Additional Capital Charge for each investment (except for Master Trust in which case there will be four sets of Additional Capital Charge for each Investment).

- $r ( Normal \% TPV Overall )$
- $r ( Exceptional \% TPV Overall )$
- $r ( Normal \% TPV Rating )$
- $r ( Exceptional \% TPV Rating )$

**Step 2**

A complete set of Additional Capital Requirements from breach of Overall and Group Rating Limits is then determined as follows:

- $r(\text{MT Series \% TPV Overall}) = r(\text{Normal \% TPV Overall}) + r(\text{Exceptional \% TPV Overall})$   
excluding  $r(\text{MT Overall Exceptional})$
- $r(\text{MT Group \% TPV Overall}) = r(\text{Normal \% TPV Overall}) + r(\text{Exceptional \% TPV Overall})$   
excluding  $r(\text{MT Overall Normal})$
- $r(\text{MT Series \% TPV Rating}) = r(\text{Normal \% TPV Rating}) + r(\text{Exceptional \% TPV Rating})$   
excluding  $r(\text{MT Rating Exceptional})$
- $r(\text{MT Group \% TPV Rating}) = r(\text{Normal \% TPV Rating}) + r(\text{Exceptional \% TPV Rating})$   
excluding  $r(\text{MT Rating Normal})$

Where:

- $r(\text{MT Overall Exceptional})$  = Master Trust Investments and the additional capital charge from breaching the Overall Exceptional limits
- $r(\text{MT Overall Normal})$  = Master Trust Investments and the additional capital charge from breaching the Overall Normal limits
- $r(\text{MT Rating Normal})$  = Master Trust Investments and the additional capital charge from breaching the Group Rating Normal limits
- $r(\text{MT Rating Exceptional})$  = Master Trust Investments and the additional capital charge from breaching the Group Rating Exceptional limits

**Step 3**

Only one Additional Capital Charge for each Investment can be used to determine the set of Total Additional Capital Charge from testing against the full set of Maximum Single Obligor - % TPV limits.

Therefore the next step is to determine which Additional Capital Charge for an investment is to be actually used within the full set of charges based on the Rating group.

Reference	Field Name	Description / Calculation
ha	Product ID	Product.ProductID
hb	$r(\text{MT Series \% TPV Overall})$	Additional Capital Charge for each asset against Overall Limits (incl. Single Obligor against Master Trust Investments = Master Trust Series (Parent Counterparty))
hc	$r(\text{MT Group \% TPV Overall})$	Additional Capital Charge for each asset against Overall Limits (incl. Single Obligor against Master Trust Investments = Master Trust Group (Master Trust Counterparty))
hd	$r(\text{MT Series \% TPV Rating})$	Additional Capital Charge for each asset against Rating Group Limits (incl. Single Obligor against Master Trust Investments = Master Trust Series (Parent Counterparty))
he	$r(\text{MT Group \% TPV Rating})$	Additional Capital Charge for each asset against Rating Group Limits (incl. Single Obligor against Master Trust Investments = Master Trust Group (Master Trust Counterparty))
hf	$r(\text{\%TPV})$	The Additional Capital Charge for each investment = $\text{Max}(\text{hb, hc, hd, he})$ . This will be the final set of Additional Capital Charges for breaching the Single Obligor = % Total Portfolio Value tests

### **Maximum Single Obligor - % Adjusted Net Asset Value Test**

The full set of Additional Capital Requirements from breaching any of the "Maximum Single Obligor - % of Adjusted Net Asset Value" for each investment (**excluding Cash Equivalents**) will be referred to as:

- $r ( \% \text{ NAV} )$

The following Portfolio Parameter test contain the concentration limits:

- **Maximum Single Obligor - % of Adjusted Net Asset Value**

Each Eligible Investment belongs to a Single Obligor (Parent) except if the Investment has been tagged to a Master Trust in which case the Investment should be grouped to the Master Trust as the Single Obligors as defined below:

For the purpose of calculating a single set of Additional Capital Requirements against each investment resulting from breach of any of the limits within this test we will have to, however, group the tests together as:

- Largest Single Obligor
- Two Largest Single Obligors (Excl. AAA assets)
- Three Largest Single Obligors (Excl AAA and AA assets)
- Five Largest Single Obligors (Excl AAA, AA and A assets)

A complete set of additional capital requirements (for all eligible investments) from breaching either the limits against any of the groups are:

- $r ( \% \text{ NAV Single Largest} )$
- $r ( \% \text{ NAV Two Largest} )$
- $r ( \% \text{ NAV Three Largest} )$
- $r ( \% \text{ NAV Five Largest} )$

#### Step 4

Apply the following method to determine the Additional Capital Charge for each investment after being grouped at the Single Obligor level as well as Rating and tested against the limits for each group.

The limits have been defined in the following Portfolio Parameter Test:

- **Maximum Single Obligor - % of Adjusted Net Asset Value**

This will result in returning four sets Additional Capital Charge for each investment.

- $r ( \% \text{ NAV Single Largest} )$
- $r ( \% \text{ NAV Two Largest} )$
- $r ( \% \text{ NAV Three Largest} )$
- $r ( \% \text{ NAV Five Largest} )$

Reference	Field Name	Description / Calculation
bg	Single Obligor	Name of Parent Counterparty (except if Master Trust, in which case the Single Obligor is the Master Trust)
bh	Product ID	Product.ProductID
bi	Notional	USD Factored Notional
bj	Deemed Rating	Rating against specific Rating Agency (S&P or Moodys)
bk	Par Value	See <u>Definition – Par Value above</u>
bl	Base Capital Haircut	See <u>Base Capital Requirement above</u>

Reference	Field Name	Description / Calculation
bm	%age NAV (by Group)	(Sum of bk by Group) / <u>Adjusted Net Asset Value</u> (see above)
bn	Group Single Obligors	Identify Single Obligors that meet the specific group tests (e.g. The largest Single Obligor or the Two largest Single Obligors excluding AAA's etc)
bo	Group Assets	Identify Assets associated with the Single Obligors identified in "bn"
bp	Eligible Limit (for each Group)	Eligible Limit associated with the group (100% of Adjusted Net Asset Value for all Groups )
bq	%age in Breach of Eligible Limit	= MAX (0, bm – bp) (against only those Single Obligors identified in "bn")
br	Eligible Penalty	= bq / bm (against only those assets identified in "bo")
bs	%age Normal Capital Charge	= 1 – br ( against only those assets identified in "bo")
bt	Base Capital	= bk x bl (against only those assets identified in "bo")
bu	Normal Capital Charge	= bk x bl x bs (against only those assets identified in "bo")
bv	Eligible Capital Charge	= br x bk (against only those assets identified in "bo")
bw	Additional Capital Charge	= ( bu + bv ) – bt (against only those assets identified in "bo")

## Step 5

Reference	Field Name	Description / Calculation
bx	Product ID	Product.ProductID
by	r ( % NAV Single Largest )	Additional Capital Charge for each asset after breaching % NAV Single Largest limit
bz	r ( % NAV Two Largest)	Additional Capital Charge for each asset after breaching % NAV Two Largest limit
ca	r ( % NAV Three Largest)	Additional Capital Charge for each asset after breaching % NAV Three Largest limit
cb	r ( % NAV Five Largest )	Additional Capital Charge for each asset after breaching % NAV Five Largest limit
cc	r ( % NAV)	The Additional Capital Charge for each asset will = Sum (by, bz, ca, cb) for each asset. This will be the final set of Additional Capital Charges against each asset for breaching the Single Obligor - % Adjusted Net Asset Value test.

### ***Maximum Single Obligor - % of JCN Par Value***

The full set of Additional Capital Requirements from breaching any of the "Maximum Single Obligor - % of JCN Par Value" for each investment (**excluding Cash Equivalents**) will be referred to as:

- $r ( \% \text{ JCN} )$

The following Portfolio Parameter test contain the concentration limits:

- **Maximum Single Obligor - % of JCN Par Value**

Each Eligible Investment belongs to a Single Obligor (Parent) except if the Investment has been tagged to a Master Trust in which case the Investment should be grouped to the Master Trust as the Single Obligors as defined below:

For the purpose of calculating a single set of Additional Capital Requirements against each investment resulting from breach of any of the limits within this test we will have to, however, group the tests together as:

- Largest Single Obligor Rated A (**Coarse level 3**)
- Two Largest Single Obligors Rated Baa (**Coarse level 4**)
- Three Largest Single Obligors Rated Ba (**Coarse level 5**)

A complete set of additional capital requirements (for all eligible investments) from breaching either the limits against any of the groups are:

- $r ( \% \text{ JCN Single Largest} )$
- $r ( \% \text{ JCN Two Largest} )$
- $r ( \% \text{ JCN Three Largest} )$

#### Step 4

Apply the following method to determine the Additional Capital Charge for each investment after being grouped at the Single Obligor level as well as Rating and tested against the limits for each group.

The limits have been defined in the following Portfolio Parameter Test:

- **Maximum Single Obligor - % of JCN Par Value**

This will result in returning three sets Additional Capital Charge for each investment.

- $r ( \% \text{ JCN Single Largest} )$
- $r ( \% \text{ JCN Two Largest} )$
- $r ( \% \text{ JCN Three Largest} )$

Reference	Field Name	Description / Calculation
ga	Single Obligor	Name of Parent Counterparty (except if Master Trust, in which case the Single Obligor is the Master Trust)
gb	Product ID	Product.ProductID
gc	Notional	USD Factored Notional
gd	Deemed Rating	Rating against specific Rating Agency (S&P or Moodys or Fitch)
ge	Par Value	See <u>Definition – Par Value</u> above
gf	Base Capital Haircut	See <u>Base Capital Requirement</u> above
gg	%age JCN (by Group)	(Sum of bk by Group) / <u>JCN Par Value</u> (see above)
gh	Group Single Obligors	Identify Single Obligors that meet the specific group tests (e.g. The largest Single Obligor Rated A or the Two largest Single Obligors Rated Baa etc)

Reference	Field Name	Description / Calculation
gi	Group Assets	Identify Assets associated with the Single Obligors identified in "gh"
gj	Eligible Limit (for each Group)	Eligible Limit associated with the group (100% of JCN Par Value for all Groups )
gk	%age in Breach of Eligible Limit	= MAX (0, gg – gj) (against only those Single Obligors identified in "gh")
gl	Eligible Penalty	= gk / gg (against only those assets identified in "gi")
gm	%age Normal Capital Charge	= 1 – gl ( against only those assets identified in "gi")
gn	Base Capital	= ge x gf (against only those assets identified in "gi")
go	Normal Capital Charge	= ge x gf x gm (against only those assets identified in "gi")
gp	Eligible Capital Charge	= gl x ge (against only those assets identified in "gi")
gq	Additional Capital Charge	= ( go + gp ) – gn (against only those assets identified in "gi")

**Step 5**

Reference	Field Name	Description / Calculation
gr	Product ID	Product.ProductID
gs	r ( % JCN Single Largest )	Additional Capital Charge for each asset after breaching % JCN Single Largest limit
gt	r ( % JCN Two Largest)	Additional Capital Charge for each asset after breaching % JCN Two Largest limit
gu	r ( % JCN Three Largest)	Additional Capital Charge for each asset after breaching % JCN Three Largest limit
gv	r ( % JCN)	The Additional Capital Charge for each asset will = Sum (gs, gt, gu) for each asset. This will be the final set of Additional Capital Charges against each asset for breaching the Single Obligor - % JCN Par Value.

### **Maximum Rating Composition Test**

The full set of Additional Capital Requirements from breaching any of the "Maximum Rating Composition Limits" for each investment (**including Cash Equivalents**) will be referred to as:

#### **r ( % Rating )**

- Include Cash Equivalent Investments

The limits have been defined within the Portfolio Parameter Tests:

- Maximum Rating Composition Test

Reference	Field Name	Description / Calculation
ci	Product ID	Product.ProductID
cj	Notional	Factored USD Notional
ck	Deemed Rating	Rating against specific Rating Agency (S&P or Moodys)
cl	Par Value	See <u>Definition – Par Value</u> above
cm	Base Capital Haircut	See <u>Base Capital Requirement</u> above
cn	%age TPV (By AAA Rating Group)	(Sum of "cl" by AAA Rating Group) / <u>Par Total Portfolio Value</u> (see above)
co	%age TPV (By AA Rating Group)	(Sum of "cl" by AA Rating Group) / <u>Par Total Portfolio Value</u> (see above)
cp	%age TPV (By A Rating Group)	(Sum of "cl" by A Rating Group) / <u>Par Total Portfolio Value</u> (see above)
cq	%age TPV (By BBB Rating Group)	(Sum of "cl" by BBB Rating Group) / <u>Par Total Portfolio Value</u> (see above)
cr	%age TPV (By BB Rating Group)	(Sum of "cl" by BB Rating Group) / <u>Par Total Portfolio Value</u> (see above)
cs	%age TPV (By B Rating Group)	(Sum of "cl" by B Rating Group) / <u>Par Total Portfolio Value</u> (see above)
ct	%age TPV (AAA and Below)	= cn + co + cp + cq + cr + cs
cu	%age TPV (AA and Below)	= co + cp + cq + cr + cs
cv	%age TPV (A and Below)	= cp + cq + cr + cs
cw	%age TPV (BBB and Below)	= cq + cr + cs
cx	%age TPV (BB and Below)	= cr + cs
cy	%age TPV (B and Below)	= cs
cz	Eligible Limit (AAA and below)	Max Eligible Limit against AAA and below
da	Operational Limit (AAA and Below)	Max Operational Limit against AAA and below
db	Eligible Limit (AA and below)	Max Eligible Limit against AA and below
dc	Operational Limit (AA and Below)	Max Operational Limit against AA and below
dd	Eligible Limit (A and below)	Max Eligible Limit against A and below
de	Operational Limit (A and Below)	Max Operational Limit against A and below
df	Eligible Limit (BBB and below)	Max Eligible Limit against BBB and below
dg	Operational Limit (BBB and Below)	Max Operational Limit against BBB and below
dh	Eligible Limit (BB and below)	Max Eligible Limit against BB and below
di	Operational Limit (BB and Below)	Max Operational Limit against BB and below
dj	Eligible Limit (B and below)	Max Eligible Limit against B and below
dk	Operational Limit (B and Below)	Max Operational Limit against B and below

Reference	Field Name	Description / Calculation
dl	%age Breach B and Below (Operational Limit)	= MAX(0, cy - dk)
dm	%age Breach B and Below (Eligible Limit)	= MAX(0, cy - dj)
dn	%age Breach BB and Below (Operational Limit)	= MAX(0, cx - di)
do	%age Breach BB and Below (Eligible Limit)	= MAX(0, cx - dh)
dp	%age Breach BBB and Below (Operational Limit)	= MAX(0, cw - dg)
dq	%age Breach BBB and Below (Eligible Limit)	= MAX(0, cw - df)
dr	%age Breach A and Below (Operational Limit)	= MAX(0, cv - de)
ds	%age Breach A and Below (Eligible Limit)	= MAX(0, cv - dd)
dt	%age Breach AA and Below (Operational Limit)	= MAX(0, cu - dc)
du	%age Breach AA and Below (Eligible Limit)	= MAX(0, cu - db)
dv	%age Breach AAA and Below (Operational Limit)	= MAX(0, ct - da)
dw	%age Breach AAA and Below (Eligible Limit)	= MAX(0, ct - cz)
dx	Eligible Penalty ( B and Below)	= MIN(cs, dm)
dy	Non Operational Penalty ( B and Below)	= MIN(cs, MAX(0, dl - dm))
dz	Normal Cap Charge ( B and Below)	= cs - dy - dx
ea	Total Cap Charge ( B and Below)	= dx + dy + dz
eb	Eligible Penalty ( BB and Below)	= MIN(cr, MAX(0, do - dx))
ec	Non Operational Penalty ( BB and Below)	= MIN(cr, MAX(0, MAX(0, dn - do) - dy))
ed	Normal Cap Charge ( BB and Below)	= cr - ec - eb
ee	Total Cap Charge ( BB and Below)	= eb + ec + ed
ef	Eligible Penalty ( BBB and Below)	= MIN(cq, MAX(0, dq - eb - dx))
eg	Non Operational Penalty ( BBB and Below)	= MIN(cq, MAX(0, MAX(0, dp - dq) - ec - dy))
eh	Normal Cap Charge ( BBB and Below)	= cq - eg - ef
ei	Total Cap Charge ( BBB and Below)	= ef + eg + eh
ej	Eligible Penalty ( A and Below)	= MIN(cp, MAX(0, ds - ef - eb - dx))
ek	Non Operational Penalty ( A and Below)	= MIN(cp, MAX(0, MAX(0, dr - ds) - eg - ec - dy))
el	Normal Cap Charge ( A and Below)	= cp - ek - ej
em	Total Cap Charge ( A and Below)	= ej + ek + el
en	Eligible Penalty ( AA and Below)	= MIN(co, MAX(0, du - ej - ef - eb - dx))

Reference	Field Name	Description / Calculation
eo	Non Operational Penalty ( AA and Below)	$\text{MIN}(\text{co}, \text{MAX}(0, \text{MAX}(0, \text{dt} - \text{du}) - \text{ek} - \text{eg} - \text{ec} - \text{dy}))$
ep	Normal Cap Charge ( AA and Below)	$= \text{co} - \text{eo} - \text{en}$
eq	Total Cap Charge ( AA and Below)	$= \text{ep} + \text{eo} + \text{en}$
er	Eligible Penalty ( AAA and Below)	$= \text{MIN}(\text{cn}, \text{MAX}(0, \text{dw} - \text{en} - \text{ej} - \text{ef} - \text{eb} - \text{dx}))$
es	Non Operational Penalty ( AAA and Below)	$= \text{MIN}(\text{cn}, \text{MAX}(0, \text{MAX}(0, \text{dv} - \text{dw}) - \text{eo} - \text{ek} - \text{eg} - \text{ec} - \text{dy}))$
et	Normal Cap Charge ( AAA and Below)	$= \text{cn} - \text{es} - \text{er}$
eu	Total Cap Charge ( AAA and Below)	$= \text{er} + \text{es} + \text{et}$
ev	% AAA Group Assets with Eligible Penalty	$= \text{er} / \text{eu}$
ew	% AAA Group Assets with Non Operational Penalty	$= \text{es} / \text{eu}$
ex	% AAA Group Assets with Normal Charge	$= \text{et} / \text{eu}$
ey	% AA Group Assets with Eligible Penalty	$= \text{en} / \text{eq}$
ez	% AA Group Assets with Non Operational Penalty	$= \text{eo} / \text{eq}$
fa	% AA Group Assets with Normal Charge	$= \text{ep} / \text{eq}$
fb	% A Group Assets with Eligible Penalty	$= \text{ej} / \text{em}$
fc	% A Group Assets with Non Operational Penalty	$= \text{ek} / \text{em}$
fd	% A Group Assets with Normal Charge	$= \text{el} / \text{em}$
fe	% BBB Group Assets with Eligible Penalty	$= \text{ef} / \text{ei}$
ff	% BBB Group Assets with Non Operational Penalty	$= \text{eg} / \text{ei}$
fg	% BBB Group Assets with Normal Charge	$= \text{eh} / \text{ei}$
fh	% BB Group Assets with Eligible Penalty	$= \text{eb} / \text{ee}$
fi	% BB Group Assets with Non Operational Penalty	$= \text{ec} / \text{ee}$
fj	% BB Group Assets with Normal Charge	$= \text{ed} / \text{ee}$
fk	% B Group Assets with Eligible Penalty	$= \text{dx} / \text{ea}$
fl	% B Group Assets with Non Operational Penalty	$= \text{dy} / \text{ea}$
fm	% B Group Assets with Normal Charge	$= \text{dz} / \text{ea}$
fn	Normal Capital Charge Against each Asset	$= \text{cl} \times \text{cm} \times (\text{relevant } \% \text{ Rating Group Assets with Normal Charge})$ , this is from one of the following: ex, fa, fd, fg, fj, fm
fo	Non Operational Penalty against each Asset	$= \text{cl} \times \text{cm} \times 1.1 \times (\text{relevant } \% \text{ Rating Group Assets with Non Operational Penalty})$ , this is from one of the following: ew, ez, fc, ff, fi, fl
fp	Eligible Penalty against each	$= \text{cl} \times (\text{relevant } \% \text{ Rating Group Assets with Non Eligible}$

Reference	Field Name	Description / Calculation
	Asset	Penalty") , this is from one of the following: ev, ey, fb, fe, fh, fk
fq	Total Capital Requirement for each Asset	= fn + fo + fp
fr	Base Capital Requirement	= cl x cm ( for each asset)
fs	r ( % Rating)	= fq – fr (For each asset)

#### 4.9.9.4. Group C

C – Total Additional Capital Charge for Group C

= Sum ((Sum( r (Monoline))+ Sum( r (Currency)) + Sum( r (Fixed Rate) + Sum( r (Servicer)) + Sum( r (RegionCountry))))

##### Step 1

The Total Additional Capital Charge Required for Group C is determined by calculating the Additional Capital requirement against each Eligible Investment after testing against six sets of limits:

- Insurer Guaranteed Structured Finance Securities limits (i.e. Tag = Monoline)
- Key Country limits
- Key Region Limits
- Currency limits
- Fixed Rate Securities limits
- Servicer Exposure limits

Therefore, apply **Method 1** to determine the Additional Capital Charge for each investment after being grouped and tested against the limits for each group. I.e. Country, Currency, Fixed Rate Securities etc.

These limits have been defined in five Portfolio Parameter Tests:

- Insurer Guaranteed Structured Finance Securities Test
- Key Country Concentration Test
- Currency Concentration Test
- Maximum % Fixed Rate Securities Test
- Maximum Servicer Exposure Test (This test has changed and the calculation of the additional Capital Requirement resulting from breaching either the Operational or Eligible Limit which is now specific to each Servicer will need to be incorporated here)

This will result in returning six sets of Additional Capital Charge for each investment.

- r (Monoline)
- r (Country)
- r (Region)
- r (Currency)
- r (Fixed Rate)
- r (Servicer)

(r = Additional Capital Charge for each investment –see above)

Each set of Additional Capital Charge in this case have been calculated based on testing breaches against different parameters except for the Country and Region groups.

In this case Countries are grouped up to Regions similar to the way Sub Sectors are grouped up to Sectors which in turn are grouped up to Investment Classes within Group A.

**Step 2**

Therefore, a similar method as that applied within step 2 of the Group A calculation will need to be applied so that a single set of Additional Capital Charges can be determined against breaching Country and Region limits.

The result of which will be referred to as:

- $r(\text{RegionCountry})$

Therefore the next step is to determine which Additional Capital Charge for an investment is actually used between breaching the Country and Region limits which will be used to determine "C"

Reference	Field Name	Description / Calculation
ac	Product ID	Product.ProductID
ad	$r(\text{Country})$	Additional Capital Charge against Country Limits
ae	$r(\text{Country})$ Grouped by Region	= Sum " $r(\text{Country})$ " grouped by Region
af	$r(\text{Region})$	Additional Capital Charge against Region Limits
ag	$r(\text{Region})$ Grouped by Region	= Sum " $r(\text{Region})$ " grouped by Region
ah	$r(\text{RegionCountry})$	= IF (ag > ae, af, ad)

#### 4.9.10. Total Hedge Additional Capital Requirement (Q)

An Excel Extract will also be produced to support the calculation of the Total Additional Capital Requirement (Q).

Total Hedge Additional Capital Required = Q

Q = sum ( r )

##### 4.9.10.1. Methodology

###### Method 2

This method should be used for determining the Hedge Additional Capital Charge for each Derivative where the Net Market Value against the Hedge Counterparty (Parent) is positive.

Reference should be made to the "Amended Market Value of Hedge Counterparty Exposure" report which is grouped by parent and the Market Value of each derivative is only adjusted when the Net Market Value of the Hedge Counterparty (Parent) for the particular derivative is positive.

This is similar to Method 1 described when calculating "Additional Capital Requirement (P)" above, except that in this case the Market Value is used as a percentage of Mark Total Portfolio Value and only calculated if the net market value against the Hedge Counterparty (Parent) is positive.

Reference	Field Name	Description / Calculation
a	Product ID	Product.ProductID
b	Notional	USD Factored Notional
c	Market Value	See <u>Definition – Market Value</u> above
d	Grouped by	<u>Group by Single Obligor (Parent)</u>
e	Base Capital Haircut	See <u>Base Capital Requirement</u> above
f	% age Mark TPV by Group	IF((Sum of c by Group) > 0, ((Sum of c by Group) / <u>Mark Total Portfolio Value</u> (see above), 0 )
g	Operational Limit	Operational Limit associated with the group (see limits set within <u>Max Hedge Single Obligor - % Mark Total Portfolio Value Test</u> )
h	Eligible Limit	Eligible Limit associated with the group (see limits set within <u>Max Hedge Single Obligor - % Mark Total Portfolio Value Test</u> )
i	Eligible Limit Breach	MAX (0, f -h)
j	Operational Limit Breach	MAX(0, f - i - g )
k	Eligible Penalty	= IF (f = 0, 0, (i / f))
l	Non Operational Penalty	= IF (f = 0, 0, (j / f))
m	%age Normal Capital Charge	= IF (f = 0, 0, (1 - l - k ))
n	Base Capital Requirement	= IF (f = 0, 0, (c x e ))
o	Normal Capital Charge	= IF (f = 0, 0, (c x m x e))
p	Non Operational Capital Charge	= IF (f = 0, 0, (l x c x (e x 1.10)))
q	Eligible Capital Charge	= IF (f = 0, 0, (k x c))
r	Additional Capital Charge	= ( o + p + q ) - n

## 4.10. Liquidity Tests

### 4.10.1. MNCO Test

The Liquidity Tests shall comprise of the following tests:

- 1-Day MNCO Test
- 5-Day MNCO Test
- 10-Day MNCO Test
- 15-Day MNCO Test

#### 4.10.1.1. Summary Report

Report Name	MNCO Test
Report No	2071

MNCO Tests	Date	Net Cumulative Outflow	Repo Margin Call Provision Buffer	Test Outflow	Available Liquidity	Test Result
1 Day MNCO Test						
5 Day MNCO Test						
10 Day MNCO Test						
15 Day MNCO Test						

#### Definitions

Field	Description
MNCO Tests	Name of MNCO Test
Date	Date associated with Max Net Cumulative Outflow for each test (from Test Results for Net Cumulative Outflow)
Net Cumulative Outflow	=MAX Outflow against relevant Day test ( as per existing test - from Test Results for Net Cumulative Outflow)
Repo Margin Call Provision Buffer	Should be set to zero for closing since Rhinebridge will not be entering into any Repo Transactions (See <u>Repo Margin Call Buffer</u> below)
Test Outflow	Sum of (Net Cumulative Outflow) + ( Repo Margin Call Provision Buffer)
Available Liquidity	= Appropriate <u>Available Liquidity</u> from detail report below
Test Result	If Test Outflow = < Available Liquidity then PASS, otherwise FAIL

#### 4.10.1.2. Detail Report

Report Name	Available Liquidity
Report No	2070

MNCO Test	Committed Liquidity	Breakable Deposits	Money Market Funds	Cash (USD Equivalent)	Liquidity Eligible Committed Repo	Haircut MV of all LEI Investments	Available Liquidity
1 Day	XX	XX	XX	XX	XX		XX
5 Day	XX	XX	XX	XX	XX		XX
10 Day	XX	XX	XX	XX	XX	XX	XX

MNCO Test	Committed Liquidity	Breakable Deposits	Money Market Funds	Cash (USD Equivalent)	Liquidity Eligible Committed Repo	Haircut MV of all LEI Investments	Available Liquidity
15 Day	XX	XX	XX	XX	XX	XX	XX

**Definitions**

Field	Description	
MNCO Tests	Name of MNCO Test	
Committed Liquidity	To be provided by Rhinebridge Finance (Enter into Fund Parameter table)	
Breakable Deposits	= Total (USD Factored Notional) from <u>Breakable Deposits Report</u> (see below)	
Money Market Funds	= Total (USD Factored Notional) from <u>Money Market Funds</u> (see below)	
Liquidity Eligible Committed Repo	= D from <u>Liquidity Eligible Committed Repo</u> report below	
Haircut MV of all LEI Investments	= Total Haircut MV of LEI from <u>Haircut MV of all LEI Investments Report</u> (see below)	
Available Liquidity	1 Day	= Committed Liquidity + Breakable Deposits + Money Market Funds + Liquidity Eligible Committed Repo
	5 Day	= Committed Liquidity + Breakable Deposits + Money Market Funds + Liquidity Eligible Committed Repo
	10 Day	= Committed Liquidity + Breakable Deposits + Money Market Funds + Liquidity Eligible Committed Repo + Haircut MV of all LEI Investments
	15 Day	= Committed Liquidity + Breakable Deposits + Money Market Funds + Liquidity Eligible Committed Repo + Haircut MV of all LEI Investments

**4.10.1.3. Detail Report**

Report Name	Net Cumulative Outflow
Report No	2069

**Definition**

- Existing report
- No other change is required

**4.10.2. Haircut MV of all LEI**

[IKB] Subject to final clarification from Rating Agencies

NB: Added HEL as well as introduced haircuts related to Fitch Rating

Report Name	Liquidity Eligible Investments								
Report No	2052								

ProductID	Counterparty	Deemed Rating	Sub Sector	Country	CCY	WAL	Fixed / Floating	Market Value	Haircut	Haircut MV of LEI
<b>Total</b>										

**Definition**

- Only Investments where the Counterparty associated with the investment has been tagged as LEI (Liquidity Eligible Investment) and not tagged as "Potential Committed Repo Investment"

Field	Description
Product ID	Product.ProductID
Counterparty	Name of Child Counterparty associated with investment
Deemed Rating	Specific Agency rating (i.e. S&P or Moodys)
Sub Sector	This is the Sub Sector against the child counterparty associated with investment.
Country	Country against the Child Counterparty associated with the Investment
Currency	Currency of the Investment
WAL	Average life of investment
Fixed / Floating	Fixed or Floating
Market Value	Market Value of Investment (see Definitions – Market Value above)
Haircut	<p>The Haircut can be determined based on (see <a href="#">Appendix H</a>) NB: The Appendix needs to be updated with Sub Sector, Currency and Country fields</p> <p>NB Haircuts are shown as percentages in Appendix H and therefore should be divided by 100.</p> <ul style="list-style-type: none"> <li>Deemed Rating</li> <li>Sub Sector</li> <li>Country</li> <li>Currency</li> <li>WAL</li> <li>Fixed or Floating</li> </ul> <p><b>If the Investment does not meet any of the above requirements within Appendix H then the haircut should be set to 1.0</b></p>
Haircut MV of LEI	Market Value x (1 – Haircut)
Total Haircut MV of LEI	Sum of Available Liquidity

#### 4.10.3. Breakable Deposits

Report Name	Breakable Deposits
Report No	2026

Product ID	Counterparty	Deemed Rating	Par Value	Market Value
<b>Total</b>			<b>x.XXXXXXX</b>	<b>x.XXXXXXX</b>

##### Definition

- Only Investments where the Counterparty associated with the investment has been tagged as Breakable Deposits

Field	Description
Product ID	Product.ProductID
Counterparty	Name of Child Counterparty
Deemed Rating	Specific Agency rating (i.e. S&P or Moodys)
USD Factored Notional	USD Factored Notional
Market Value	Market Value of Investment (see Definitions – Market Value above)
Total (USD Factored Notional)	Sum of USD Factored Notional
Total (Market Value)	Sum of Market Value

#### 4.10.4. Money Market Funds

Report Name	Money Market Funds			
Report No	2018			

Product ID	Counterparty	Deemed Rating	Par Value	Market Value
<b>Total</b>			<b>x.XXXXXX</b>	<b>x.XXXXXX</b>

##### Definition

- Only Investments where TradeType = MMF

Field	Description
Product ID	Product.ProductID
Counterparty	Name of Child Counterparty
Deemed Rating	Specific Agency rating (i.e. S&P or Moodys)
Par Value	Par Value
Market Value	Market Value of Investment (see <a href="#">Definitions – Market Value</a> above)
Total (USD Factored Notional)	Sum of USD Factored Notional
Total (Market Value)	Sum of Market Value

#### 4.10.5. Liquidity Eligible Committed Repo

Report Name	Liquidity Eligible Committed Repo			
Report No	2055			

Potential Committed Repo Investment Funding Value (A)	Total Undrawn Committed Repo Facility (B)	Repo Limitation Test LECR Cap (C)	Liquidity Eligible Committed Repo( LECR)

##### Definition

Field	Reference	Description
Potential Committed Repo Investment Funding Value	A	= Total Potential Committed Repo Investment Funding Value from Section 2 of the <a href="#">Potential Committed Repo Investment Funding Value</a> report below
Total Undrawn Committed Repo Facility	B	= Total Committed Repo Facility from Section 1 of the <a href="#">Potential Committed Repo Investment Funding Value</a> report below (Assume that for Closing Rhinebridge will not be entering into any Repo Transactions and therefore the Repo Facility has not been reduced by the Repo Investment Funding Value)
Repo Limitation Test LECR Cap	C	Result from <a href="#">Repo Limitation Test LECR Cap</a> (see below)
Liquidity Eligible Committed Repo (LECR)	D	= MIN ( A, B, C)

#### 4.10.6. Potential Committed Repo Investment Funding Value

Before the Potential Committed Repo Investment Funding Value can be determined a table where the Committed Repo Facility and the details against each facility must be stored in a table as follows:

For example

Provider	Repo Facility (millions)	Haircut
Provider 1	500.000000	1.00001
Provider 2	750.000000	1.00003
Provider 3	800.000000	1.00004

The Potential Committed Repo Investment Funding Value can then be determined in shown in the following Report

##### 4.10.6.1. Summary

Report Name	Potential Committed Repo Investment Funding Value
Report No	2057

- Only Investments that have been tagged as
  - Liquidity Eligible Investment and
  - Potential Committed Repo Investment

Product ID	USD Factored Notional	Market Value	Weighted Haircut Value	Potential Committed Repo Investment Funding Value
B_BOND1	10.000000	10.001000	1.0002100	9.998854
B_BOND2	15.000000	15.001500	1.0002100	14.998281
B_BOND3	25.000000	25.002500	1.0002100	24.997135
B_BOND4	15.000000	15.001500	1.0002100	14.998281
B_BOND5	12.000000	12.001200	1.0002100	11.998625
B_BOND6	45.000000	45.004500	1.0002100	44.994843
B_BOND7	20.000000	20.002000	1.0002100	19.997708
<b>Total</b>	<b>142.000000</b>	<b>142.014200</b>		<b>141.983725</b>

##### Definition

- Only Investments that have been tagged as
  - Liquidity Eligible Investment and
  - Potential Committed Repo Investment

Field	Reference	Definition
Product ID		Product.ProductID
USD Factored Notional	G	USD Factored Notional of the Investment
Market Value	H	Market Value of Investment (see <u>Definitions – Market Value</u> above)
Weighted Haircut Value	I	= F (from Section 1 = Total Weighted Haircut Value)
Potential Committed Repo Investment Funding	J	= H x I (MV multiply by Weighted Haircut Value)

Field	Reference	Definition
Value		
Total USD Factored Notional	K	= Sum(G)
Total Market Value	L	= Sum (H)
Total Potential Committed Repo Investment Funding Value	M	= Sum(J)

#### 4.10.6.2. Detail Report

Report Name	Liquidity Committed Repo Facility
Report No	2056

Provider	Repo Facility	%age of Total Committed Repo Facility	Haircut	Weighted Haircut Value
Provider 1	500.000000	25.39%	1.00001	0.24393
Provider 2	750.000000	36.59%	1.00003	0.36593
Provider 3	800.000000	39.02%	1.00004	0.39036
Total	<b>2,050.000000</b>	<b>100.00%</b>		<b>1.00021</b>

##### Definition

Field	Reference	Definition
Provider		Name of Repo Facility Provider from the table where details are stored
Repo Facility	A	Amount of Repo Facility
%age of Total Committed Repo Facility	B	= A / E The Repo Facility from each provider divided Total Repo Facility
Haircut	C	Haircut associated with each Repo Facility
Weighted Haircut Value	D	= B * C
Total Repo Facility	E	= Sum (A)
Total Weighted Haircut	F	= Sum (D)

#### 4.10.7. Repo Limitation Test LECR Cap

Report Name	Repo Limitation Test LECR Cap
Report No	2073

For Closing since Rhinebridge will not be entering into any Repo Transactions this test will always PASS, since the result of:

$$((10\% - (\text{Repo Investment Funding Value} / \text{Senior Funding})) \times \text{Senior Funding}) \geq 0$$

Where:

- Repo Investment Funding Value = Zero (since there are no Repo Transactions, hence no Repo Investments)
- Senior Funding = Total Effective Notional Value of the Senior Funding = Total Market of all Senior Debt Obligation ( see "Average Cost Analysis (Senior Notes)" Report

#### 4.10.8. Repo Margin Call Provision Buffer

Since for Closing Rhinebridge will not be entering into any Repo Transactions this will be set to zero

## 4.11. Market Sensitivity Tests

### 4.11.1. Summary Report

Report Name	Sensitivities Summary (Rhinebridge plc)					
Report No	2031					

Category	Test	Sensitivity	Net Asset Value	Amended Net Asset Value	%age Change	Limit (bp)	Test Result
<b>Parallel Yield Curve Shift</b>							
	Parallel Yield Curve Shift 1Bp up					0.2	
	Parallel Yield Curve Shift 1Bp down					0.2	
	Parallel Yield Curve Shift 100 Bp up					20.0	
	Parallel Yield Curve Shift 100 Bp down					20.0	
<b>Point Yield Curve Shift</b>							
	One Month Parallel Shift 1Bp up					0.2	
	Three Month Parallel Shift 1Bp up					0.2	
	Six Month Parallel Shift 1Bp up					0.2	
	Nine Month Parallel Shift 1Bp up					0.2	
	Twelve Month Parallel Shift 1Bp up					0.2	
	Two Year Parallel Shift 1Bp up					0.2	
	Three Year Parallel Shift 1Bp up					0.2	
	Four Year Parallel Shift 1Bp up					0.2	
	Five Year Parallel Shift 1Bp up					0.2	
	Seven Year Parallel Shift 1Bp up					0.2	
	Ten Year Parallel Shift 1Bp up					0.2	
	Fifteen Year Parallel Shift 1Bp up					0.2	
	Thirty Year Parallel Shift 1Bp up					0.2	
	One Month Parallel Shift 1Bp down					0.2	
	Three Month Parallel Shift 1Bp down					0.2	
	Six Month Parallel Shift 1Bp down					0.2	
	Nine Month Parallel Shift 1Bp down					0.2	
	Twelve Month Parallel Shift 1Bp down					0.2	
	Two Year Parallel Shift 1Bp down					0.2	
	Three Year Parallel Shift 1Bp down					0.2	
	Four Year Parallel Shift 1Bp down					0.2	
	Five Year Parallel Shift 1Bp down					0.2	
	Seven Year Parallel Shift 1Bp down					0.2	
	Ten Year Parallel Shift 1Bp down					0.2	
	Fifteen Year Parallel Shift 1Bp down					0.2	
	Thirty Year Parallel Shift 1Bp down					0.2	
	One Month Parallel Shift 100 Bp up					20.0	
	Three Month Parallel Shift 100 Bp up					20.0	
	Six Month Parallel Shift 100 Bp up					20.0	
	Nine Month Parallel Shift 100 Bp up					20.0	
	Twelve Month Parallel Shift 100 Bp up					20.0	
	Two Year Parallel Shift 100 Bp up					20.0	
	Three Year Parallel Shift 100 Bp up					20.0	
	Four Year Parallel Shift 100 Bp up					20.0	
	Five Year Parallel Shift 100 Bp up					20.0	
	Seven Year Parallel Shift 100 Bp up					20.0	
	Ten Year Parallel Shift 100 Bp up					20.0	
	Fifteen Year Parallel Shift 100 Bp up					20.0	
	Thirty Year Parallel Shift 100 Bp up					20.0	
	One Month Parallel Shift 100 Bp down					20.0	
	Three Month Parallel Shift 100 Bp down					20.0	

Category	Test	Sensitivity	Net Asset Value	Amended Net Asset Value	%age Change	Limit (bp)	Test Result
	Six Month Parallel Shift 100 Bp down					20.0	
	Nine Month Parallel Shift 100 Bp down					20.0	
	Twelve Month Parallel Shift 100 Bp down					20.0	
	Two Year Parallel Shift 100 Bp down					20.0	
	Three Year Parallel Shift 100 Bp down					20.0	
	Four Year Parallel Shift 100 Bp down					20.0	
	Five Year Parallel Shift 100 Bp down					20.0	
	Seven Year Parallel Shift 100 Bp down					20.0	
	Ten Year Parallel Shift 100 Bp down					20.0	
	Fifteen Year Parallel Shift 100 Bp down					20.0	
	Thirty Year Parallel Shift 100 Bp down					20.0	
<b>FX Sensitivity</b>							
	Spot Foreign Exchange 1% Up					2.0	
	Spot Foreign Exchange 1% Down					2.0	
	Spot Foreign Exchange 10% Up					20.0	
	Spot Foreign Exchange 10% Down					20.0	

**Definition**

- **Based on existing Sensitivities Summary Report**

Field	Description	
Category	<b>Parallel Yield Curve Shift</b>	Results of Parallel shifting the Yield Curve by 1 bp and 100 bp up and down. Existing reports tests against the highest positive sensitivity, however, the Rhinebridge sensitivity tests should test against the each sensitivity after parallel shift of the Yield Curve by 1bp up and then 1bp down as well as 100bp up and 100bp down. See additional detail reports below.
	<b>Point Yield Curve Shift</b>	Results of shifting each point on the Yield Curve independent of all other points by 1 bp and 100 bp up and down. Existing reports only tested against the sensitivity after shifting each individual point on the Yield Curve by 1bp up, however, the tests should be performed against the resulting sensitivity after shifting each point on the Yield curve by 1bp and 1bp down as well as 100bp up and 100bp down.
	<b>FX Sensitivity</b>	Results of changing the value of each currency relative to the US Dollar by 1% (up and down) and then 10% (up and Down). Existing reports tests against 1% up and down only, however, additional tests against a change in the FX rate by 10% up and down should also be tested.
Tests	Details of each test as defined above	
Sensitivity	Total USD Sensitivity (see existing Reports)	
Net Asset Value	See <a href="#">Definition – Net Asset Value</a> above	
Amended Net Asset Value	Net Asset Value + Sensitivity	
%age Change (bp)	$=ABS(1-(Amended\_NAV/NAV))*10000$	
Limit	See limits in report above	
Result	$=IF(%age\_Change<=Limit,"PASS","FAIL")$	

**4.11.1.2. Detail Reports**

**Parallel Yield Curve Summary 1bp up and down**

Report Name	Parallel Yield Curve Summary 1bp up and down
Report No	2032

**Point Yield Curve Summary 1bp up**

Report Name	Point Yield Curve Summary 1bp up
Report No	2036

**Spot Foreign Exchange 1% up and down**

Report Name	Spot Foreign Exchange 1% up and down
Report No	2038

**Parallel Yield Curve Summary 100 bp up and down**

Report Name	Parallel Yield Curve Summary 100 bp up and down
Report No	2033

**Point Yield Curve Summary 1bp down**

Report Name	Point Yield Curve Summary 1bp down
Report No	2035

**Point Yield Curve Summary 100 bp up**

Report Name	Point Yield Curve Summary 100 bp up
Report No	2037

**Point Yield Curve Summary 100 bp down**

Report Name	Point Yield Curve Summary 100 bp down
Report No	2034

**Spot Foreign Exchange 10% up and down**

Report Name	Spot Foreign Exchange 10% up and down
Report No	2039

**Point Yield Curve 1bp Up Exposure**

Report Name	Point Yield Curve 1bp Up Exposure
Report No	2077

**Point Yield Curve 1bp Down Exposure**

Report Name	Point Yield Curve 1bp Down Exposure
Report No	2076

**Point Yield Curve 100bp Up Exposure**

Report Name	Point Yield Curve 100bp Up Exposure
Report No	2078

**Point Yield Curve 100bp Down Exposure**

Report Name	Point Yield Curve 100bp Down Exposure
Report No	2075

**Point Yield Curve 1bp Up Differences**

Report Name	Point Yield Curve 1bp Up Differences
Report No	2081

**Point Yield Curve 1bp Down Differences**

Report Name	Point Yield Curve 1bp Down Differences
Report No	2080

**Point Yield Curve 100bp Up Differences**

Report Name	Point Yield Curve 100bp Up Differences
Report No	2082

**Point Yield Curve 100bp Down Differences**

Report Name	Point Yield Curve 100bp Down Differences
Report No	2079

## 4.12. Other Tests

### 4.12.1. Weighted Average Life of Senior Obligations Test

Report Name	Weighted Average Life of Senior Debt Obligations Test
Report No	

<b>Rhinebridge PLC</b> Weighted Average Life of Senior Debt Obligations Day, DD Month, YYYY			
Test Name	Weighted Average Life of Senior Funding (Months)	Limit (Months)	Result
WAL of Senior Debt Obligations Test	XX.XXXXXX	3.0	PASS / FAIL

#### Definition

Field	Definition
Weighted Average Life of Senior Funding (Months)	("Weighted Average Life of the Programme" in the "Average Cost Analysis (Senior Notes)" report) * 12
Limit (Months)	3.0
Result	= IF (WAL Senior Funding (Months) < Limit, "FAIL", "PASS")

## 4.13. F6.0 Standard Reports

New / Existing	Report Name	Title	Report No
Existing	Funding Summary	Funding Summary	5
Existing	Average Cost Analysis (Senior Notes)	Average Cost Analysis – Senior Notes	6
Existing	Maturing Liabilities	Maturing Liabilities	7
Existing	Portfolio MV	Portfolio Market Values Report	81
Existing	What-If Breakdown	What-If Test Breakdown	89
Existing	What-If Detail	What-If Test Detailed Breakdown	90
Existing	Fund Pricing Summary	Fund Pricing Summary	102
Existing	Reporting Summary	Reporting Summary	106
	Average Yield Analysis	Average Yield Analysis	107
Existing	Monthly P&I Totals	Monthly P & I – Totals	124
Existing	NCO What If Detail	NCO What If Detail	125
Existing	NCO Headroom	Premium NCO Headroom	126
Existing	Funding Summary (3 months)	Funding Summary (3 months)	129
Existing (Excel)	Factored Notionals		133
Existing (Excel)	Monthly S&P		134
Existing (Excel)	Average Yield Analysis		135
Existing (Excel)	Libor Rec		136
Existing (Excel)	Broker Rec		137
Existing	Liabilities By Date	Liabilities By Date	141
Existing	Forward Start Date Report	Forward Start Date Report	147
Existing	Liabilities by Date (Detail)	Liabilities by Date Detail	157
Existing	Swap and Bond Pricing	Swap and Bond Pricing	159
Existing	Maturing Assets – By Date Range	Maturing Assets – By Date Range	160
Existing	Maturing Assets – By Day	Maturing Assets By Day	161
	Liquid Assets Average Life	Liquid Assets Average Life	164
Existing	Liabilities Average Outstanding	Average Outstanding	168
Existing	Liabilities Average Outstanding Detail	Average Outstanding Detail	169
Existing	Transaction Summary	Transaction Summary	170
Existing	Premium-Discount Amortisation – ECP	Premium-Discount Amortisation – ECP	179

## 4.14. F7.0 Fees and Expenses

### 4.14.1.1. Enter Unpaid Accrued Costs

Functionaility is required which allows Finance to enter the following Fees and Expenses in as a Percentage of Asset Par Value (expressed as Basis Points)

1. Senior Management Fee ( bp)
2. Annual Variable Expense (bp)
3. Annual Fixed Expenses (bp)

### 4.14.1.2. History

Users should also be able to view the history and details of each costs entered

### 4.14.2. Permission

Users which the have the appropriate permissions should be able to

1. Enter / Edit Current Value
2. View Current Values / History

## 5. Acceptance Criteria

Acceptance criteria is based on EnSIS® functionality to support the requirements defined below:

Functional Requirement	Acceptance Criteria
F1.0	Ability to accurately enter trade information against agreed trade types
F2.0	Ability to enter What If trades against agreed trade types
F3.0	Ability to assign attributes to each position via the Counterparty Tag functionality within EnSIS®
F4.0	All defined values are correctly calculated and used as defined within each Test / Report
F5.0	All Tests and Reports are produced as defined within the Functional Requirements above
F6.0	The ability to access and run each standard EnSIS® Report as defined

Client Acceptance will be the goal of UAT and will be scheduled to follow successful completion of System Testing.

UAT consists of:

1. Client Test Pack – Trade Plan / Test Schedule / Trade Details
2. Daily Trading Activity
3. Client verification of system functionality and output
4. Compilation and management of UAT issues list
5. Formal sign off required to signify end of UAT

## 6. End-User Interface Requirements

### 6.1. End-User Characteristics

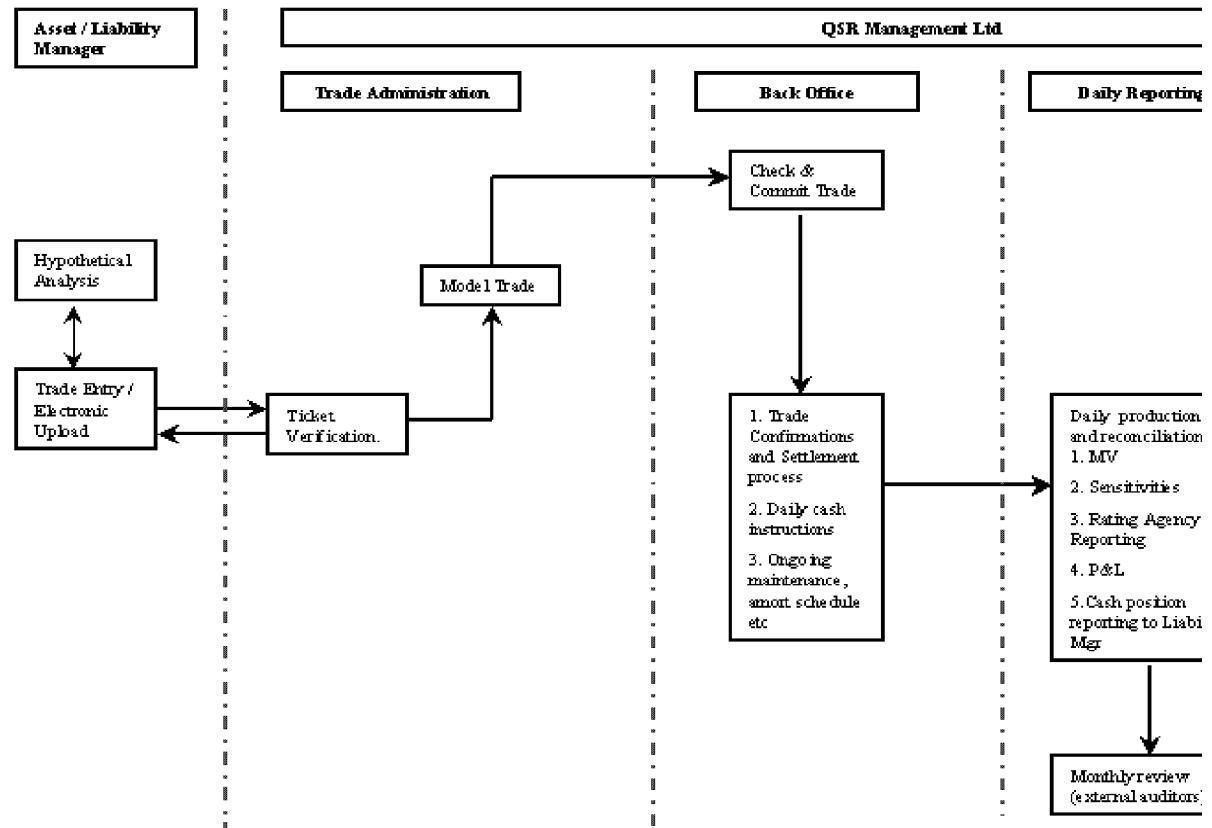
End Users will be categorized into 2 Groups:

User	Description
Traders	<ul style="list-style-type: none"> <li>1. Create New Counterparties and assign Tags</li> <li>2. Ability to Enter Trades via Trade Blotter</li> <li>3. Ability to enter What if trades</li> <li>4. Run all Tests and Reports</li> <li>5. View access to all Position Information</li> </ul>
Enquiry Only	<ul style="list-style-type: none"> <li>1. View access to Counterparties</li> <li>2. View Access to Trades and Trade Blotter</li> <li>3. Run all Tests and Reports</li> <li>4. View access to all Position Information</li> </ul>

### 6.2. End-User Objectives

Users requires the functionality outlined within this document to perform daily Compliance Testing and general administrative operation of the Fund.

## 7. Detailed Functional Workflow Diagrams



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## 7.1. Functional Requirements Contributors

Role	Name	eMail	Phone	Organization
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Asset Manager / Sponsor	Neil Ryan	Neil.Ryan@ikb-cam.de		IKB-CAM

## 8. References

1. Rhinebridge PLC termsheet dated 12<sup>th</sup> Dec 2006 – “Agency Termsheet Draft 12 Dec 2006 MASTER.doc”
2. Discussions between Neil Ryan (IKB-CAM) , Christian Rohde (IKB-CAM) and Navindu Katugampola (Morgan Stanley)

## 9. Appendices

### 9.1. Appendix B - S&P Base Capital Requirements for Cash Investments

CDOs		Years									
Deemed Rating		1	2	3	4	5	6	7	8	9	10
AAA		<b>3.49</b>	<b>3.98</b>	<b>4.63</b>	<b>5.23</b>	<b>5.89</b>	<b>6.65</b>	<b>7.32</b>	<b>8.07</b>	<b>8.82</b>	<b>9.57</b>
AA+		3.58	4.16	4.91	5.61	6.36	7.21	7.97	8.80	9.62	10.44
AA		<b>3.67</b>	<b>4.34</b>	<b>5.19</b>	<b>5.98</b>	<b>6.83</b>	<b>7.77</b>	<b>8.62</b>	<b>9.53</b>	<b>10.42</b>	<b>11.30</b>
AA-		3.87	4.80	5.92	7.00	8.11	9.32	10.44	11.59	12.71	13.78
A+		4.07	5.26	6.66	8.02	9.38	10.87	12.26	13.64	14.99	16.26
A		<b>4.27</b>	<b>5.73</b>	<b>7.39</b>	<b>9.04</b>	<b>10.66</b>	<b>12.42</b>	<b>14.08</b>	<b>15.70</b>	<b>17.27</b>	<b>18.74</b>
A-		4.62	6.35	8.29	10.17	11.96	13.88	15.63	17.31	18.89	20.35
BBB+		4.97	6.98	9.19	11.30	13.27	15.33	17.18	18.92	20.51	21.95
BBB		<b>5.33</b>	<b>7.61</b>	<b>10.08</b>	<b>12.42</b>	<b>14.57</b>	<b>16.78</b>	<b>18.73</b>	<b>20.52</b>	<b>22.13</b>	<b>23.55</b>
BBB-		10.66	13.34	16.14	18.71	20.97	23.22	25.11	26.81	28.27	29.49
BB+		15.99	19.06	22.20	24.99	27.37	29.65	31.49	33.09	34.40	35.44
BB		<b>21.32</b>	<b>24.79</b>	<b>28.26</b>	<b>31.28</b>	<b>33.76</b>	<b>36.08</b>	<b>37.88</b>	<b>39.38</b>	<b>40.53</b>	<b>41.38</b>
BB-		26.66	30.51	34.32	37.56	40.16	42.52	44.26	45.66	46.67	47.33
< BB-		100	100	100	100	100	100	100	100	100	100

CMBS		Years									
Deemed Rating		1	2	3	4	5	6	7	8	9	10
AAA		<b>3.18</b>	<b>3.66</b>	<b>4.19</b>	<b>4.77</b>	<b>5.42</b>	<b>5.96</b>	<b>6.72</b>	<b>7.46</b>	<b>8.20</b>	<b>8.96</b>
AA+		3.29	3.92	4.60	5.34	6.14	6.84	7.77	8.66	9.56	10.46
AA		<b>3.41</b>	<b>4.17</b>	<b>5.01</b>	<b>5.91</b>	<b>6.86</b>	<b>7.72</b>	<b>8.82</b>	<b>9.86</b>	<b>10.91</b>	<b>11.95</b>
AA-		3.55	4.46	5.46	6.52	7.61	8.62	9.86	11.04	12.21	13.37
A+		3.69	4.75	5.90	7.12	8.35	9.52	10.91	12.22	13.52	14.79
A		<b>3.84</b>	<b>5.04</b>	<b>6.35</b>	<b>7.72</b>	<b>9.10</b>	<b>10.42</b>	<b>11.96</b>	<b>13.40</b>	<b>14.83</b>	<b>16.22</b>
A-		4.10	5.43	6.85	8.33	9.80	11.20	12.80	14.29	15.74	17.13
BBB+		4.36	5.81	7.35	8.94	10.49	11.98	13.64	15.17	16.65	18.05
BBB		<b>4.63</b>	<b>6.19</b>	<b>7.84</b>	<b>9.55</b>	<b>11.19</b>	<b>12.76</b>	<b>14.48</b>	<b>16.06</b>	<b>17.56</b>	<b>18.96</b>
BBB-		10.74	11.92	14.51	16.42	18.21	19.89	21.67	23.27	24.74	26.09
BB+		16.86	17.66	21.18	23.30	25.23	27.02	28.86	30.48	31.93	33.22
BB		<b>22.98</b>	<b>23.40</b>	<b>27.85</b>	<b>30.17</b>	<b>32.26</b>	<b>34.16</b>	<b>36.05</b>	<b>37.69</b>	<b>39.12</b>	<b>40.34</b>
BB-		29.10	29.14	34.51	37.05	39.28	41.29	43.24	44.90	46.31	47.47
< BB-		100	100	100	100	100	100	100	100	100	100

Credit Cards		Years									
Deemed Rating		1	2	3	4	5	6	7	8	9	10
AAA		<b>1.50</b>	<b>1.73</b>	<b>1.99</b>	<b>2.26</b>	<b>2.48</b>	<b>2.78</b>	<b>2.99</b>	<b>3.31</b>	<b>3.64</b>	<b>3.98</b>
AA+		1.57	1.84	2.15	2.47	2.78	3.18	3.50	3.89	4.28	4.69
AA		<b>1.63</b>	<b>1.95</b>	<b>2.31</b>	<b>2.68</b>	<b>3.08</b>	<b>3.57</b>	<b>4.01</b>	<b>4.46</b>	<b>4.92</b>	<b>5.39</b>
AA-		1.71	2.05	2.44	2.83	3.27	3.79	4.26	4.74	5.23	5.72

A+	1.79	2.15	2.57	2.99	3.46	4.01	4.51	5.02	5.53	6.05
A	<b>1.87</b>	<b>2.26</b>	<b>2.70</b>	<b>3.15</b>	<b>3.64</b>	<b>4.23</b>	<b>4.76</b>	<b>5.29</b>	<b>5.84</b>	<b>6.39</b>
A-	2.12	2.61	3.16	3.74	4.38	5.03	5.61	6.23	6.86	7.49
BBB+	2.37	2.96	3.62	4.34	5.11	5.83	6.46	7.18	7.89	8.60
BBB	<b>2.63</b>	<b>3.31</b>	<b>4.08</b>	<b>4.93</b>	<b>5.85</b>	<b>6.63</b>	<b>7.31</b>	<b>8.12</b>	<b>8.92</b>	<b>9.71</b>
BBB-	8.37	9.17	10.06	11.03	12.08	12.95	13.70	14.59	15.45	16.30
BB+	14.12	15.03	16.03	17.14	18.31	19.27	20.10	21.06	21.99	22.89
BB	<b>19.87</b>	<b>20.89</b>	<b>22.01</b>	<b>23.24</b>	<b>24.55</b>	<b>25.59</b>	<b>26.49</b>	<b>27.53</b>	<b>28.52</b>	<b>29.48</b>
BB-	25.62	26.75	27.98	29.35	30.78	31.92	32.89	34.00	35.06	36.07
< BB-	100	100	100	100	100	100	100	100	100	100

Auto Loans										
Deemed Rating	Years									
	1	2	3	4	5	6	7	8	9	10
AAA	<b>1.60</b>	<b>2.01</b>	<b>2.46</b>	<b>2.95</b>	<b>3.42</b>	<b>3.96</b>	<b>4.42</b>	<b>4.97</b>	<b>5.53</b>	<b>6.10</b>
AA+	1.67	2.14	2.66	3.22	3.75	4.36	4.89	5.50	6.12	6.76
AA	<b>1.74</b>	<b>2.27</b>	<b>2.86</b>	<b>3.48</b>	<b>4.08</b>	<b>4.76</b>	<b>5.36</b>	<b>6.03</b>	<b>6.72</b>	<b>7.41</b>
AA-	1.86	2.48	3.18	3.91	4.61	5.40	6.12	6.91	7.71	8.51
A+	1.97	2.70	3.49	4.34	5.14	6.05	6.89	7.79	8.69	9.60
A	<b>2.09</b>	<b>2.91</b>	<b>3.81</b>	<b>4.77</b>	<b>5.68</b>	<b>6.70</b>	<b>7.65</b>	<b>8.66</b>	<b>9.68</b>	<b>10.69</b>
A-	2.34	3.27	4.28	5.35	6.35	7.47	8.51	9.59	10.67	11.73
BBB+	2.60	3.64	4.76	5.93	7.03	8.24	9.37	10.52	11.66	12.77
BBB	<b>2.86</b>	<b>4.01</b>	<b>5.24</b>	<b>6.52</b>	<b>7.71</b>	<b>9.02</b>	<b>10.22</b>	<b>11.45</b>	<b>12.65</b>	<b>13.80</b>
BBB-	8.66	10.02	11.45	12.91	14.24	15.67	16.98	18.28	19.52	20.70
BB+	14.46	16.03	17.67	19.30	20.77	22.33	23.73	25.11	26.39	27.59
BB	<b>20.26</b>	<b>22.05</b>	<b>23.88</b>	<b>25.69</b>	<b>27.30</b>	<b>28.99</b>	<b>30.49</b>	<b>31.93</b>	<b>33.27</b>	<b>34.48</b>
BB-	26.07	28.06	30.09	32.08	33.83	35.64	37.24	38.76	40.14	41.38
< BB-	100	100	100	100	100	100	100	100	100	100

RMBS										
Deemed Rating	Years									
	1	2	3	4	5	6	7	8	9	10
AAA	<b>1.74</b>	<b>2.03</b>	<b>2.26</b>	<b>2.62</b>	<b>2.97</b>	<b>3.26</b>	<b>3.68</b>	<b>4.09</b>	<b>4.50</b>	<b>4.92</b>
AA+	1.80	2.14	2.41	2.82	3.21	3.56	4.02	4.47	4.93	5.40
AA	<b>1.86</b>	<b>2.24</b>	<b>2.57</b>	<b>3.02</b>	<b>3.46</b>	<b>3.85</b>	<b>4.37</b>	<b>4.86</b>	<b>5.37</b>	<b>5.87</b>
AA-	1.97	2.42	2.82	3.36	3.88	4.36	4.97	5.55	6.14	6.73
A+	2.07	2.59	3.07	3.70	4.29	4.87	5.57	6.24	6.91	7.59
A	<b>2.18</b>	<b>2.77</b>	<b>3.32</b>	<b>4.03</b>	<b>4.71</b>	<b>5.38</b>	<b>6.17</b>	<b>6.93</b>	<b>7.69</b>	<b>8.45</b>
A-	2.41	3.08	3.72	4.50	5.24	5.96	6.81	7.60	8.39	9.17
BBB+	2.65	3.40	4.11	4.96	5.77	6.55	7.44	8.28	9.10	9.90
BBB	<b>2.89</b>	<b>3.71</b>	<b>4.50</b>	<b>5.43</b>	<b>6.29</b>	<b>7.14</b>	<b>8.08</b>	<b>8.95</b>	<b>9.81</b>	<b>10.62</b>
BBB-	9.59	10.55	11.46	12.49	13.42	14.32	15.26	16.12	16.97	17.76
BB+	16.29	17.38	18.43	19.55	20.56	21.51	22.45	23.29	24.13	24.90
BB	<b>22.99</b>	<b>24.22</b>	<b>25.39</b>	<b>26.62</b>	<b>27.69</b>	<b>28.70</b>	<b>29.63</b>	<b>30.46</b>	<b>31.29</b>	<b>32.04</b>
BB-	29.69	31.06	32.35	33.68	34.82	35.89	36.82	37.62	38.46	39.18
< BB-	100	100	100	100	100	100	100	100	100	100

Student Loans										
Deemed Rating	Years									
	1	2	3	4	5	6	7	8	9	10
AAA	<b>1.53</b>	<b>1.81</b>	<b>2.09</b>	<b>2.37</b>	<b>2.65</b>	<b>2.91</b>	<b>3.07</b>	<b>3.38</b>	<b>3.71</b>	<b>4.04</b>

AA+	2.00	2.42	2.83	3.30	3.76	4.21	4.61	5.08	5.60	6.13
AA	<b>2.46</b>	<b>3.04</b>	<b>3.57</b>	<b>4.24</b>	<b>4.88</b>	<b>5.50</b>	<b>6.15</b>	<b>6.77</b>	<b>7.50</b>	<b>8.23</b>
AA-	2.58	3.26	3.90	4.69	5.45	6.19	6.97	7.70	8.55	9.39
A+	2.70	3.48	4.24	5.15	6.01	6.89	7.78	8.64	9.60	10.55
A	<b>2.82</b>	<b>3.71</b>	<b>4.57</b>	<b>5.60</b>	<b>6.58</b>	<b>7.58</b>	<b>8.60</b>	<b>9.57</b>	<b>10.64</b>	<b>11.71</b>
A-	3.08	4.08	5.07	6.21	7.28	8.37	9.47	10.50	11.62	12.71
BBB+	3.34	4.46	5.56	6.81	7.98	9.15	10.33	11.43	12.59	13.72
BBB	<b>3.60</b>	<b>4.84</b>	<b>6.05</b>	<b>7.41</b>	<b>8.67</b>	<b>9.94</b>	<b>11.20</b>	<b>12.35</b>	<b>13.57</b>	<b>14.73</b>
BBB-	9.51	10.96	12.39	13.92	15.31	16.68	18.01	19.21	20.44	21.58
BB+	15.42	17.09	18.72	20.42	21.94	23.42	24.82	26.07	27.31	28.44
BB	<b>21.33</b>	<b>23.22</b>	<b>25.05</b>	<b>26.93</b>	<b>28.57</b>	<b>30.16</b>	<b>31.63</b>	<b>32.93</b>	<b>34.18</b>	<b>35.30</b>
BB-	27.24	29.35	31.39	33.44	35.20	36.90	38.45	39.78	41.06	42.15
< BB-	100	100	100	100	100	100	100	100	100	100

HELs										
Deemed Rating	Years									
	1	2	3	4	5	6	7	8	9	10
AAA	<b>2.32</b>	<b>2.77</b>	<b>3.16</b>	<b>3.70</b>	<b>4.22</b>	<b>4.71</b>	<b>5.23</b>	<b>5.72</b>	<b>6.32</b>	<b>6.92</b>
AA+	2.39	2.91	3.36	3.97	4.55	5.10	5.67	6.22	6.86	7.51
AA	<b>2.47</b>	<b>3.05</b>	<b>3.56</b>	<b>4.24</b>	<b>4.88</b>	<b>5.49</b>	<b>6.12</b>	<b>6.71</b>	<b>7.41</b>	<b>8.09</b>
AA-	2.59	3.29	3.91	4.71	5.47	6.21	6.96	7.67	8.46	9.24
A+	2.72	3.52	4.26	5.18	6.06	6.93	7.80	8.62	9.52	10.39
A	<b>2.84</b>	<b>3.76</b>	<b>4.60</b>	<b>5.66</b>	<b>6.65</b>	<b>7.64</b>	<b>8.64</b>	<b>9.57</b>	<b>10.57</b>	<b>11.54</b>
A-	3.10	4.12	5.07	6.20	7.25	8.28	9.28	10.20	11.16	12.07
BBB+	3.36	4.48	5.53	6.74	7.84	8.91	9.92	10.82	11.75	12.60
BBB	<b>3.63</b>	<b>4.85</b>	<b>5.99</b>	<b>7.29</b>	<b>8.44</b>	<b>9.54</b>	<b>10.56</b>	<b>11.45</b>	<b>12.34</b>	<b>13.13</b>
BBB-	9.52	10.90	12.20	13.55	14.72	15.78	16.72	17.51	18.28	18.92
BB+	15.42	16.96	18.40	19.82	20.99	22.02	22.88	23.58	24.22	24.72
BB	<b>21.32</b>	<b>23.02</b>	<b>24.60</b>	<b>26.09</b>	<b>27.27</b>	<b>28.27</b>	<b>29.04</b>	<b>29.64</b>	<b>30.16</b>	<b>30.51</b>
BB-	27.22	29.07	30.80	32.36	33.55	34.51	35.20	35.71	36.10	36.31
< BB-	100	100	100	100	100	100	100	100	100	100

Cash Equivalents (Short Term Rating)										
Deemed Rating	Years									
	1	2	3	4	5	6	7	8	9	10
A-1+	0.0019%	0.0019%	0.0019%	0.0019%	0.0019%	0.0019%	0.0019%	0.0019%	0.0019%	0.0019%
A-1	0.0113%	0.0113%	0.0113%	0.0113%	0.0113%	0.0113%	0.0113%	0.0113%	0.0113%	0.0113%
A-2	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
A-3	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
B	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

## 9.2. Appendix C - Moody's Base Capital Requirements for Cash Investments (6 Month WAL Senior Liabilities)

Generic Haircuts										
Deemed Rating	Years									
	1	2	3	4	5	6	7	8	9	10
Aaa	<b>2.17</b>	<b>2.59</b>	<b>3.01</b>	<b>3.50</b>	<b>3.92</b>	<b>4.34</b>	<b>5.04</b>	<b>5.67</b>	<b>6.37</b>	<b>7.00</b>
Aa1	2.71	3.24	3.76	4.38	4.90	5.43	6.30	7.09	7.96	8.75
Aa2	<b>3.26</b>	<b>3.89</b>	<b>4.52</b>	<b>5.25</b>	<b>5.88</b>	<b>6.51</b>	<b>7.56</b>	<b>8.51</b>	<b>9.56</b>	<b>10.50</b>
Aa3	3.62	4.32	5.02	5.83	6.53	7.23	8.40	9.45	10.62	11.67
A1	3.98	4.75	5.52	6.42	7.19	7.96	9.24	10.40	11.68	12.83
A2	<b>4.34</b>	<b>5.18</b>	<b>6.02</b>	<b>7.00</b>	<b>7.84</b>	<b>8.68</b>	<b>10.08</b>	<b>11.34</b>	<b>12.74</b>	<b>14.00</b>
A3	5.24	6.26	7.27	8.46	9.47	10.49	12.18	13.70	15.39	16.92
Baa1	6.15	7.34	8.53	9.92	11.11	12.30	14.28	16.07	18.05	19.83
Baa2	<b>7.05</b>	<b>8.42</b>	<b>9.78</b>	<b>11.38</b>	<b>12.74</b>	<b>14.11</b>	<b>16.38</b>	<b>18.43</b>	<b>20.70</b>	<b>22.75</b>
Baa3	8.32	9.93	11.54	13.42	15.03	16.64	19.32	21.74	24.42	26.83
Ba1	9.58	11.44	13.29	15.46	17.31	19.17	22.26	25.04	28.13	30.92
Ba2	<b>10.85</b>	<b>12.95</b>	<b>15.05</b>	<b>17.50</b>	<b>19.60</b>	<b>21.70</b>	<b>25.20</b>	<b>28.35</b>	<b>31.85</b>	<b>35.00</b>
Ba3	12.12	14.46	16.81	19.54	21.89	24.23	28.14	31.66	35.57	39.08
< Ba3	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Category Factor							
Deemed Rating	Industry						
	CDO	CMBS	Credit Cards	Auto Loans	RMBS	Student Loan	HEL
Aaa	1.60	1.00	0.75	0.85	0.75	0.75	0.90
Aa1	1.60	1.00	0.75	0.85	0.75	0.75	0.90
Aa2	1.60	1.00	0.75	0.85	0.75	0.75	0.90
Aa3	1.60	1.00	0.75	0.85	0.75	0.75	0.90
A1	1.60	1.00	0.75	1.00	0.75	0.75	1.00
A2	1.60	1.00	0.75	1.00	0.75	0.75	1.00
A3	1.60	1.00	0.75	1.00	0.75	0.75	1.00
Baa1	2.50	1.00	1.00	1.25	1.00	1.00	1.25
Baa2	2.50	1.00	1.00	1.25	1.00	1.00	1.25
Baa3	2.50	1.00	1.00	1.25	1.00	1.00	1.25
Ba1	2.50	1.00	1.30	1.50	1.00	1.00	1.50
Ba2	2.50	1.00	1.30	1.50	1.00	1.00	1.50
Ba3	2.50	1.00	1.30	1.50	1.00	1.00	1.50
< Ba3	1.60	1.00	0.75	0.85	0.75	0.75	0.90

### 9.3. Appendix D - Moody's Short Maturity Base Capital Requirements for Cash Investments

Moody's Base Capital Requirements for Cash Investments for assets where the Weighted Average Life of the Investment is less than or equal to the Weighted Average Life of Senior Debt Obligations.

Base Capital Requirements for Cash Investments											
Deemed Rating	Years										
	1	2	3	4	5	6	7	8	9	10	11
Aaa	0.001%	0.001%	0.001%	0.001%	0.001%	0.001%	0.001%	0.001%	0.001%	0.001%	0.001%
Aa1	0.011%	0.011%	0.011%	0.011%	0.011%	0.011%	0.011%	0.011%	0.011%	0.011%	0.011%
Aa2	0.020%	0.020%	0.020%	0.020%	0.020%	0.020%	0.020%	0.020%	0.020%	0.020%	0.020%
Aa3	0.054%	0.054%	0.054%	0.054%	0.054%	0.054%	0.054%	0.054%	0.054%	0.054%	0.054%
A1	0.087%	0.087%	0.087%	0.087%	0.087%	0.087%	0.087%	0.087%	0.087%	0.087%	0.087%
A2	0.121%	0.121%	0.121%	0.121%	0.121%	0.121%	0.121%	0.121%	0.121%	0.121%	0.121%
A3	0.202%	0.202%	0.202%	0.202%	0.202%	0.202%	0.202%	0.202%	0.202%	0.202%	0.202%
Baa1	0.284%	0.284%	0.284%	0.284%	0.284%	0.284%	0.284%	0.284%	0.284%	0.284%	0.284%
Baa2	0.366%	0.366%	0.366%	0.366%	0.366%	0.366%	0.366%	0.366%	0.366%	0.366%	0.366%
Baa3	0.830%	0.830%	0.830%	0.830%	0.830%	0.830%	0.830%	0.830%	0.830%	0.830%	0.830%
Ba1	1.294%	1.294%	1.294%	1.294%	1.294%	1.294%	1.294%	1.294%	1.294%	1.294%	1.294%
Ba2	1.757%	1.757%	1.757%	1.757%	1.757%	1.757%	1.757%	1.757%	1.757%	1.757%	1.757%
Ba3	2.221%	2.221%	2.221%	2.221%	2.221%	2.221%	2.221%	2.221%	2.221%	2.221%	2.221%

## 9.4. Appendix E – Weighted Average Life of Senior Funding Factor

Liability Maturity Factor	
Senior Notes WAL (in months)	Liability Maturity Factor
0	1.18
1	1.15
2	1.12
3	1.09
4	1.05
5	1.02
6	0.99
7	0.96
8	0.93
9	0.90
10	0.87
11	0.84
12	0.81
13	0.79
14	0.78
15	0.77
16	0.76
17	0.75
18	0.74
19	0.73
20	0.72
21	0.71
22	0.70
23	0.69
24	0.68

## 9.5. Appendix F - S&P Counterparty Expected Loss Table

RMBS		Years									
Deemed Rating		1	2	3	4	5	6	7	8	9	10
AAA	2.31	2.75	3.15	3.68	4.18	4.66	5.17	5.65	6.25	6.86	
AA+	2.39	2.90	3.36	3.96	4.53	5.08	5.66	6.21	6.88	7.55	
AA	2.46	3.04	3.57	4.24	4.88	5.50	6.15	6.77	7.50	8.23	
AA-	2.58	3.26	3.90	4.69	5.45	6.19	6.97	7.70	8.55	9.39	
A+	2.70	3.48	4.24	5.15	6.01	6.89	7.78	8.64	9.60	10.55	
A	2.82	3.71	4.57	5.60	6.58	7.58	8.60	9.57	10.64	11.71	
A-	3.08	4.08	5.07	6.21	7.28	8.37	9.47	10.50	11.62	12.71	
BBB+	3.34	4.46	5.56	6.81	7.98	9.15	10.33	11.43	12.59	13.72	
BBB	3.60	4.84	6.05	7.41	8.67	9.94	11.20	12.35	13.57	14.73	
BBB-	9.51	10.96	12.39	13.92	15.31	16.68	18.01	19.21	20.44	21.58	
BB+	15.42	17.09	18.72	20.42	21.94	23.42	24.82	26.07	27.31	28.44	
BB	21.33	23.22	25.05	26.93	28.57	30.16	31.63	32.93	34.18	35.30	
BB-	27.24	29.35	31.38	33.44	35.2	36.9	38.44	39.79	41.05	42.16	
< BB-	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	

## 9.6. Appendix G - Moody's Counterparty Expected Loss Table

Moody's Counterparty Expected Loss										
Deemed Rating	Years									
	1	2	3	4	5	6	7	8	9	10
Aaa	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%
Aa1	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%
Aa2	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%
Aa3	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%
A1	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%
A2	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%
A3	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%
Baa1	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%
Baa2	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%
Baa3	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%
Ba1	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%
Ba2	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%
Ba3	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%	0.0400%

## 9.7. Appendix H. Liquidity Eligible Investment Eligibility and Haircuts

Industry Sector	Deemed Ratings	Remaining Weighted Average Life (Year)	Floating-Rate Haircuts (%)	Fixed-Rate Haircuts (%)
Sovereigns & Supranationals - All	AAA/Aaa/AAA	0-1	1.5	5.0
	AAA/Aaa/AAA	1-5	3.0	17.0
	AA/Aa/AAA	5-10	5.0	25.0
	AA/Aa/AAA	0-1	5.0	5.0
	AA/Aa/AAA	1-5	5.0	35.0
	AA/Aa/AAA	5-10	7.0	35.0
ABS - Prime Credit Cards	AAA/Aaa/AAA	0-2	1.0	NA
	AAA/Aaa/AAA	2-3	3.0	NA
	AAA/Aaa/AAA	3-5	5.0	NA
	AAA/Aaa/AAA	5-7	7.0	NA
ABS - Prime Auto	AAA/Aaa/AAA	0-1	3.0	NA
	AAA/Aaa/AAA	1-2	3.0	NA
	AAA/Aaa/AAA	2-3	4.0	NA
ABS - U.S. Government Guaranteed Student Loan	AAA/Aaa/AAA	0-2	3.0	NA
	AAA/Aaa/AAA	2-7	7.0	NA
HEL	AAA/Aaa/AAA	0-1	3.0	
	AAA/Aaa/AAA	1-2	4.0	
	AAA/Aaa/AAA	2-5	5.0	
Prime UK RMBS	AAA/Aaa/AAA	0-5	4.0	NA
Global Australian RMBS	AAA/Aaa/AAA	0-5	5.0	NA

## 9.8. Appendix I – Recovery Rates

### Moody's

#### Recovery Rates

Aaa	80%
Aa1	25%
Aa2	25%
Aa3	25%
A1	20%
A2	20%
A3	20%
Baa1	15%
Baa2	15%
Baa3	15%
Ba1	7%
Ba2	7%
Ba3	7%

### S&P

#### Recovery Rates

AAA	80%
AA+	25%
AA	25%
AA-	25%
A+	20%
A	20%
A-	20%
BBB+	15%
BBB	15%
BBB-	15%
BB+	7%
BB	7%
BB-	7%